

FORWARD AIR CONTROLLERS IN THE VIETNAM WAR: EXEMPLARS
OF AUDACITY, INNOVATION, AND IRREVERENCE

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by

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ABSTRACT

FORWARD AIR CONTROLLERS IN THE VIETNAM WAR: EXEMPLARS OF AUDACITY, INNOVATION, AND IRREVERENCE, by Major Heath J. Kerns, 121 pages.

The precise application of airpower in Southeast Asia from 1963 through 1973 required Forward Air Controllers (FACs). They were bold men who linked air power to ground forces, supersonic jets to propellers, and bombs to targets. They faced their enemy at low altitudes, in underpowered, under armored, makeshift aircraft, while drawing the full wrath of enemy fire. In addition to the tactical dangers, FACs faced a daunting operational environment in the Vietnam War. The USAF designed for strategic nuclear confrontation with the Soviets was ill prepared for the jungles of Vietnam. The geopolitics of the Cold War, the Strategic Air Command focused USAF and the elusive enemy in dense jungle, presented great challenges for the FACs.

In spite of these challenges, FACs adapted and innovated, learned and mastered their techniques. They audaciously risked their lives and irreverently risked their careers to defend allied forces and prosecute the enemy. The distinctive political, military, and environmental context of the Vietnam War produced audacious, innovative, and irreverent FACs. By the end of U.S. involvement in Vietnam, they had mastered their missions and set forth a worthy legacy. Today, the enduring qualities of audacity, innovation, and irreverence continue to define FACs and their contemporary brethren.

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ACRONYMS

AAA	Anti-Aircraft Artillery
ALO	Air Liaison Officer
CAS	Close Air Support
CCT	Combat Controllers
CCTS	Combat Crew Training Squadron
FAC	Forward Air Controller
FID	Foreign Internal Defense
MACVSOG	Military Assistance Command, Vietnam – Studies and Observations Group
NVA	North Vietnamese Army
ROE	Rules of Engagement
SEA	Southeast Asia
SF	Army Special Forces
SOF	Special Operations Forces
TACP	Terminal Air Control Party
TASG	Tactical Air Support Group
TTP	Techniques, Tactics, and Procedures
VC	Viet Cong
VNAF	Republic of Vietnam Air Force

CHAPTER 1

INTRODUCTION

The precise application of airpower in Southeast Asia (SEA) required Forward Air Controllers (FACs). They were bold men who linked air power to ground forces, supersonic jets to propellers, and bombs to targets. FACs were the cutting edge of the spear. They faced their enemy at low altitudes (as low as fifty feet) in underpowered, under armored, makeshift aircraft, while drawing the full wrath of enemy fire. FACs applied air power with precision to achieve the most lethal effects against the enemy and provide the best air defense for U.S. and South Vietnamese military forces from 1963 through 1973. The FAC experience in SEA was unique amongst the United States Air Force (USAF) and revealed several defining FAC characteristics. Numerous FAC accounts from different units, airframes, and times all share common qualities of innovation, audacity, and irreverence. The USAF entered the operational environment of the Vietnam War ill prepared for that combat environment. During the course of war, FACs innovated and adapted their equipment and tactics against the North Vietnamese Army (NVA) and the Viet Cong (VC) insurgents. By the end of U.S. involvement in Vietnam, they had mastered their missions and set forth a worthy legacy.

The VC and NVA saw FACs as “bringers of death.”¹ To desperate friendlies under attack, they were life-sustaining heroes. The call signs of Misty, Raven, and Sidewinder were harbingers of safety and comfort to those in need of close air support

¹ Marshall Harrison, *A Lonely Kind of War: Forward Air Controller, Vietnam* (Novato, CA: Presidio Press, 1989), vii.

(CAS).² FACs orchestrated airstrikes throughout SEA while flying a wide-range of aircraft. The FACs during the early years of the war flew ill-suited, underpowered, civilian airplanes designated as O-1 Birddogs. By the end of the war, they flew OV-10 Broncos specially designed for the FAC mission.³ FACs also flew aging, refitted World War II B-26s bombers and modern F-4s.⁴ In addition to their airborne sorties, FACs also routinely conducted foot patrols as ground FACs. Integration with Army brethren gave FACs unique insight into the ground war. FACs struggled against the enemy, the environment, limited equipment, military bureaucracy, and political restrictions. Given these challenges, this thesis seeks to determine what was the effect of the Vietnam War operational environment on FACs.

Thesis

The distinctive political, military, and environmental context of the Vietnam War produced innovative, audacious, and irreverent FACs. This thesis examines the operational environment consisting of the political, military, and environmental context, as a backdrop to understand the defining qualities of successful FACs. The Cold War, containment theory and proxy wars framed the American political context. The Korean

² Harrison, vii.

³ LCDR Andrew W. Walton, USN, “The History of the Airborne Forward Air Controller in Vietnam” (Master’s thesis, U.S. Army Command and Staff College, Fort Leavenworth, KS, 2004), 42.

⁴ LtCol John Schlight, USAF, *Jet Forward Air Controllers in SEASIA* (Contemporary Historical Examination of Current Operations Report, Headquarters Pacific Air Force, Directorate, Tactical Evaluation, Contemporary Historical Examination of Current Operations Division, Hickham Air Force Base, Honolulu, HI, October 15, 1989), 22.

War and the strategic nuclear focused USAF framed the military context. The thick jungles and elusive enemy created the challenging environmental context. The FACs that emerged from the chaotic operational context, learned, adapted, and mastered the tactics, techniques, and procedures (TTPs) to employ CAS effectively through 1973. Today, the enduring qualities of innovation, audacity, and irreverence continue to define FACs and their contemporary brethren, the Joint Terminal Attack Controllers.

Exemplar Forward Air Controllers' Account

FACs bridged the gaps between high-altitude, high-speed aircraft and ground personnel. They orchestrated CAS to kill the enemy and protect the friendlies pinned down under enemy attack. They had to locate enemies and friendlies, mark targets, control fighter aircraft strikes and artillery missions, de-conflict air traffic for downed pilots, and complete a myriad of other tasks while under fire. A FAC's judgement and expertise had life and death consequences. Marshall Harrison served three tours in Vietnam with one year as an OV-10 FAC. The account of his first troops-in-contact CAS mission provides an excellent example of the FAC's challenging role.

Harrison was on a reconnaissance mission when his control center diverted him to a troops-in-contact situation involving his battalion. He checked on station and began building situational awareness as he waited for the ground commander to authorize his assistance. An unknown number of NVA had ambushed an American platoon and inflicted heavy casualties.⁵ The disciplined NVA were not retreating despite the massing of American troops against them. The enemy continued to press against the isolated

⁵ Harrison, 113.

friendlies and prevented their evacuation or retreat.⁶ Three U.S. helicopters lay smoldering on the ground. Harrison grew impatient as the pinned down platoon commander⁷ repeatedly pled for exfiltration. Finally, the brigade commander made the call for air support and the FAC sprung to action.

Harrison took command of the situation and coordinated directly with the troops under attack. Contrary to the brigade commander's insistence, not all his men were on line or accounted for. The FAC instructed all elements to pop green smoke grenades and saw the serpentine line and precarious position of friendlies intermixed with enemy.⁸ On cue, a pilot from the flight of three F-100s crackled over the radio, ready to fight.⁹

Harrison proceeded with the situation report:

What we have today is a troops-in-contact situation and they're awfully close to each other. It's important that you adhere closely to the run-in directions. We've got three companies of U.S. friendlies on the ground and an unknown number of enemy. The green-suiters have already lost three choppers and has two other put out of action so there's lots of ground fire. The friendlies are fronting north along a more or less east-west line, so we'll be running parallel to them with a north break off target. There are also isolated pockets of friendlies whose location we're not sure about. But, don't worry about them; that's my job. Just drop 'em where I tell you. Target elevation is about 300 feet and the best bailout area will be anywhere to the south of the bombing line. I want you to call 'rolling in' for each pass and 'off target'. Call FAC and target 'in sight' on each run. If you don't get positive clearance for each run, then go through dry. You're going to have to make each run on an east-to-west heading. Sorry about that, but the way the friendlies are stretched out we can't do it any other way without overflying them.

⁶ Harrison, 113.

⁷ Ibid., 114.

⁸ Ibid., 117.

⁹ Snake-eye was a Mk-81, 250-pound bomb fitted with fins that extended after release. The fins increased the bomb's drag to enable low-level and relatively slow delivery of the bomb without causing fragmentary damage to the aircraft upon impact. Nape was a 500-pound canister of Napalm. A 20 mike-mike was a 20-millimeter bullet.

Unless you have questions, I'll lead you toward the target and have you hold high and dry until I mark the targets for you.¹⁰

The FAC outlined the attack plan and oriented the fighters to the targets. They had eyes on his smoke rounds and the FAC commenced the air battle. Harrison fired a marking round and used the mark to direct the first bomb run. He instructed the isolated soldiers to use the bombs' detonations as covering fire to sprint back to the main group.¹¹ When Harrison was certain the aircraft were aligned on the right target, he cleared the F-100s to drop their bombs. Devil Lead's bombs struck dead center of the FACs' marking rocket and allowed the dislocated forces to rejoin their main line. As the fighters pulled up from their bomb delivery, the jungle sparkled with muzzle flashes and green tracer rounds attempting to hit the flight.

The FAC overflew the target at 3,000 feet then did a rapid 270-degree, descending turn and flung the OV-10 Bronco at the ground. His tricky tactics fooled the enemy for perhaps three seconds before the tracer rounds erupted again. Harrison screamed towards the ground then pulled up just over the tree line and began wildly maneuvering. At the extremely low altitude, he was able to peer through the opening that the bomb had made in the trees. In the brief seconds of his low altitude pass, he could see the enemy charging towards the American forces. Harrison commented, "Charles (a nickname for NVA) was no fool. When the heavy stuff started falling, he knew that the safest place to be was snuggled as close as he could get to the American unit, effectively

¹⁰ Harrison, 117.

¹¹ Ibid., 118.

canceling out the friendly advantage in air and artillery.”¹² If Harrison wanted to prevent closure, he would have to act quickly.

The extreme proximity of the enemy required that the fighters use guns on the second pass.¹³ Sidewinder called to the Devil Flight, “Sidewinder is in for the mark. Hold dry until I can get back into position to clear you. Be careful. We’re going to be working very close to the friendlies. If you have to make a mistake, make it to the safe side—north of the line. Remember about the artillery going in three clicks north of here and watch out for the helicopters on pull-off; they’re all over the place.”¹⁴

“And lets don’t forget about the thunderstorms either,”¹⁵ Devil Lead answered with a chuckle. Harrison admitted he had forgotten about the looming storm that was five kilometers out but still tracking their way. He only could spare a quick glance at the weather before heading back in. Harrison took his aircraft back into the fray for a second marking pass. After firing marking rockets at 1,000 feet and then again down at 700 feet, Harrison became conscious of the “automatic weapons fire winking”¹⁶ at him. The fighters dove in on his rocket marking rounds with their 20-millimeter guns. Harrison remarked:

I watched the smoke burst from beneath his aircraft. The sun glinted on the brass as it fell away expended, looking like a small rain shower as it tumbled to the ground. I turned the Bronco so I could watch the explosive slugs impacting. They

¹² Harrison, 119.

¹³ Ibid., 116.

¹⁴ Ibid., 120.

¹⁵ Ibid.

¹⁶ Ibid.

sawed at the trees like an insane woodsman. The fighter pilot was fishtailing his aircraft slightly to increase the swath of fire. There were also the blinking fireflies of the enemy's return fire. It didn't look so bad up here at 1,500 feet.¹⁷

The fighter's guns were on target. Ground troops reported that the aircraft rounds were still 150 meters away and they needed closer support. The FAC obliged and immediately adjusted the number two aircraft's guns 50 meters closer to friendlies. Harrison's musings instantly halted with a sudden transmission confirming a FAC's worst nightmare. The platoon commander started screaming over the radio, "Stop them, you're hitting my forward positions!"¹⁸ The brigade commander immediately chimed in with protest. The FAC reeled, trying to comprehend what could have gone wrong. Seconds felt like hours. Just then, the Platoon commander replied, "disregard that last transmission, one of the new troops got excited and thought he was being strafed when the brass from the aircraft's cannon fire began to fall on him . . . I'm now getting reports that Charley has started moving away."¹⁹

The FAC then had a little more breathing room to continue the attack. Unfortunately, the looming storm rolled in, forcing the pilots to finish the attacks before the weather obscured the enemy's retreat. The FAC made another marking pass on the retreating enemy. Harrison recalled:

I rolled inverted and let the lighted gun sight drift down to the area I selected to hit. I had visually marked a large emergent tree as a reference point for myself. Rain suddenly erased it from sight, along with the ground, and I suddenly found myself in the ludicrous position of diving in an inverted aircraft straight for the

¹⁷ Harrison, 120.

¹⁸ Ibid., 121.

¹⁹ Ibid.

ground, which was invisible below me and completely enveloped. The thunderstorms had sneaked into the area and caught me completely unaware.²⁰

He turned his focus to his instrument panels to right the aircraft and realized he was pulling 6-g's. He released the backpressure on the stick to allow some blood to flow back to his head. Then as suddenly as he flew into the squall, he was now out and flying flat and level. The fighter aircraft watching him responded, "Sidewinder, you really ought to find a different way to wash your airplane. If you don't get back up here where you belong, you're gonna have a few too many drain holes in it."²¹

The gunfire around the besieged company had subsided and no one was taking fire any longer. As quickly as it had begun, the enemy melted back into the jungle and disappeared. The Army commander regained control of the scene and the support helicopters returned. Harrison cleared off station and returned to base. His aircraft had taken several hits; some AK-47 rounds were still protruding from the fuselage. The other hits were clearly 12.7 millimeter, which made a clean circle on the leading edge and a gaping hole on the exit. This time the holes were not through anything too difficult to replace or patch over.²²

Harrison's encounter was representative of the life of a Vietnam era FAC. During this battle, Harrison clearly demonstrated the characteristics of innovation, audacity, and irreverence. His daring maneuvers, innovative tactics, and irreverent disregard of personal danger saved the lives of the ambushed platoon and dispatched dozens of

²⁰ Harrison, 122.

²¹ Ibid., 123.

²² Ibid.

enemies. By examining numerous FAC accounts like this and studying the operational environment, this thesis seeks to determine defining FAC characteristics and the key factors that developed FACs throughout the Vietnam War.

Research Questions

This thesis examines what key elements of the operational environment (political, military, and environmental) most affected FAC development during the Vietnam War. It analyzed how those key factors shaped FAC development throughout the war. It also analyzes their combat experiences and how that combat affected FACs and their units. How did FACs adapt and cope with the challenging aspects of their mission? How did FAC operations change over time through adaptation and innovation in their TTPs? In order to understand combat's effects, the research asks how the FAC mission supported ground maneuver, battlefield effects, and the FAC's role within the larger strategic objectives. What was the nature of the tactical missions to include typical missions, exemplars of success, and catastrophic loss? In light of FAC combat and the operational environment, the research highlights three characteristics common to FACs.

Definition of Terms

Some key terms used in this thesis are discussed below.

Forward Air Controller (FAC): The 1964 version of the Joint Chiefs of Staff Publication 1, *Dictionary of US Military Terms for Joint Usage*, defined a FAC as “An officer (aviator) member of the Tactical Air Control Party (TACP) team who, from a

forward position, controls aircraft engaged in close air support of troops.”²³ While this was the doctrinal definition, combat necessities stretched these parameters. For example, in Laos there were woefully insufficient numbers of FACs available to control the multitude of strike missions. To save the lives of Laotian allies, enlisted, non-rated Combat Controllers (CCT) routinely had to fulfill the airborne FAC role.²⁴ While the CCT missions were short lived they are an example of the FAC’s audacious and irreverent spirit to support the ground troops regardless of personal risk.²⁵ FAC accounts are filled with examples of tactical successes that came from a defiance of regulations on the battlefield in order to save lives and destroy the enemy.

Forward Air Controller’s Role

FACs are specially trained aviators whose duties include “detecting and destroying targets, coordinating or conducting target marking, providing terminal control of CAS missions, conducting reconnaissance, providing artillery and naval gunfire air spotting, providing radio relay for the Terminal Air Control Party (TACP) and ground FAC, and performing Bomb Damage Assessment.”²⁶ FACs had a myriad of tactics to master in addition to the already daunting challenges of combat aviation. As a result, the USAF initially required FACs to have at least one year of fighter pilot experience. This

²³ Joint Chiefs of Staff, Joint Publication 1-02, *Dictionary of US Military Terms for Joint Usage* (Washington, DC: Joint Chiefs of Staff, December 1, 1964), 233.

²⁴ Orr Kelly, *From a Dark Sky* (New York: Pocket Books, 1996), 179.

²⁵ *Ibid.*, 175.

²⁶ Gary Robert Lester, *Mosquitoes to Wolves: The Evolution of the Airborne Forward Air Controller* (Maxwell Air Force Base, AL: Air University Press, 1997), 132.

requirement was later relaxed to allow non-fighter pilots to retrain as FACs in order to meet manning shortfalls.²⁷

Influential Rules of Engagement

Managing the political implications of limited war during the Cold War brought additional oversight to military action. Civilian oversight was not unique to the Vietnam War; however, the Vietnam War suffered from a high volume of rapidly changing ROE.²⁸ Pilots complained of having to check their ROE hourly to determine which enemy targets were eligible at the time. Two ROE were especially influential in the conduct of the Vietnam War. The primary FAC ROE dictated that no ordnance could be delivered in South Vietnam without FAC control and a “cleared hot” call.²⁹ This ROE, which endured throughout the entire war, drastically shaped the utilization of air power in SEA and permanently placed the FAC in a position of vital importance in coordinating CAS.³⁰ Secondly, the Joint Chiefs of Staff on December 6, 1961 authorized aerial attacks against North Vietnam, but only if Republic of Vietnam Air Force (VNAF) students were aboard delivering ordnance.³¹ U.S. policy makers intended for this ROE to keep American military firmly within the advisory role. Over time, the requirement for South

²⁷ Walton, 43.

²⁸ Harrison, 96.

²⁹ Victory B. Anthony, *The Air Force in Southeast Asia: Tactics and Techniques of Night Operations, 1961-1970* (Washington, DC: Office of Air Force History, 1973), 17.

³⁰ Ibid., 18.

³¹ Lester, 84.

Vietnamese participation in every air mission constrained U.S. effectiveness. Political authorization of military action lagged far behind the tactical requirements in combat. The pace of combat far exceeded the speed of Washington oversight.

Close Air Support (CAS): Following the contextual definitions for FACs and ROE, it is necessary to provide a brief distinction of types of air combat missions used in Vietnam. Vietnam-era CAS involved “air action against hostile targets which are in close proximity to friendly forces and which require detailed integration of each air mission with the fires and movement of those forces.”³² Throughout the history of CAS, this definition has remained consistent, retaining the emphasis on “detailed integration” and “close proximity to friendly forces.”³³ Traditionally CAS occurs at the tactical level of war in a ground-centric supporting role. CAS missions employ airpower to enable the movement and protection of friendly ground forces.³⁴ The proximity to friendlies distinguishes CAS from other air operations, such as the suppression of enemy air defense or air interdiction.

Forward Air Controller Types

Lastly, this section defines the three general FAC platforms used throughout the Vietnam War. FAC aircraft design and capabilities evolved slowly throughout the war. Some air platforms received extensive modifications over time while other aircraft were

³² Walton, 4.

³³ Director, Joint Staff, Joint Publication (JP) 3-09.3, *Close Air Support* (Washington, DC: Joint Chiefs of Staff, November 25, 2014), xi. The joint definition of CAS has only minor additions and specifies that CAS is action “against hostile targets” from both “fixed and rotary-wing aircraft.”

³⁴ Ibid.

eventually replaced. The two categories of FAC aircraft were jet driven, fast-FACs and propeller driven, slow-FACs. The basic functions of the FAC remained the same for both fast and slow categories yet the strengths and limitations of each airframe substantially altered their tactics and utility. FAC pilots also conducted strike control duties from the ground, attached to a ground maneuver elements.

Scope and Significance of Study

This research covers the broad range of FAC combat in SEA from the first USAF advisors in 1961 to the fall of Laos in 1973. This period encompasses the full range of FAC operations from the arrival of the first combat aircraft until the last aircraft redeployed. This study examines the air war in South Vietnam, North Vietnam, Cambodia, and Laos to capture the wide range of FAC involvement. Airborne FACs have been prolific with their memoirs and often cover their training, air combat experiences, and to a lesser degree their ground experience. This study does not examine non-USAF FACs or Terminal Air Control Party (TACP) personnel. It compiles the FACs' perspectives for a novel understanding of the results of controlling air strikes in protracted combat.

Historiography of Forward Air Controllers in Vietnam War

Divisions of Study: Contemporary Historical Evaluation of Current Operations

The historiography of FACs during the Vietnam War identifies what FAC-related topics during the war have been covered and what has not. There is a wealth of resources available concerning the FAC's air war in Vietnam that generally fall into two categories. These include strike control and reconnaissance overviews and personal accounts. The

USAF astutely recognized the historical significance and analytical requirements of SEA air operations.³⁵ In 1962, Headquarters Pacific Air Forces established the Contemporary Historical Evaluation of Current Operations report “to provide timely and lasting corporate insights into operational and doctrinal lessons from the war.”³⁶ These classified reports were exhaustive examinations of the war that provided excellent detail and analysis of combat effectiveness and other quantifiable details related to air operations.

This thesis used the following reports extensively. Lieutenant Colonel John Schlight’s, *Jet Forward Air Controllers in SEASIA* focused on the evolution of jet FACs from their initial flights in 1967 to their expansion into the strike control and reconnaissance missions.³⁷ Schlight analyzed the effectiveness and survivability of the F-100 Super Saber in the FAC role. He also outlined the combat trial and error process as FACs honed their tactics. Schlight provided a valuable account of the fast-FAC evolution as it occurred. Melvin F. Porter’s “Control of Airstrikes: January 1967 - December 1968” focused on the command and control of airstrikes and is concerned especially with those conducted outside of Vietnam.³⁸ Additionally, he addressed airborne battlefield

³⁵ Melvin F. Porter, “Control of Airstrikes: January 1967 - December 1968” (Project Contemporary Historical Examination of Current Operations Report, Headquarters Pacific Air Force, Directorate, Tactical Evaluation, Contemporary Historical Examination of Current Operations Division, San Francisco, CA, 1969), 2.

³⁶ Ibid., ii. Through the course of time, the acronym for Contemporary Historical Examination of Current Operations Report (CHECO) changed to reflect the level of operations. CHECO first stood for “Counterinsurgency Operations” then “Combat Operations” and finally, “Current Operations.”

³⁷ Schlight, 2.

³⁸ Porter, 1.

command and control center orbits, forward air controller capabilities, armed reconnaissance, and impinging ROE.

Divisions of Study: Memoirs

Beyond the Contemporary Historical Evaluation of Current Operations reports, there are several notable overviews regarding FAC operations since the first use of CAS in World War II. Gary Lester's highly quoted work, *Mosquitos to Wolves: The Evolution of the Airborne Forward Air Controller* surveyed the entire history and provided strong analysis of the effectiveness of FACs throughout history.³⁹ Lester noted that FAC history had several recurring themes. He noted trends of military leaders entering war ill prepared to fight the current air war, then adapting, and developing successful tactics and equipment, only to later abandon the hard-learned lessons in the post-war period. This thesis concurs with Lester's analysis. USAF FACs in Vietnam are excellent examples of the reoccurring pattern of units' learning, mastering and then the institution forgetting their hard fought lessons.

The FAC pilot memoirs are particularly valuable in capturing the war's less tangible emotional and human experiences. They reflect the wide range of human responses to war and cover the spectrum from sarcastic humor to spiritual reflection. Common to other Vietnam veterans, each of their stories shared their frustration with politically-driven ROE and reflections on their personal challenges in combat. The pilots' personal memoirs are often radically divergent from the official orders and histories. For

³⁹ Lester, 1.

example, Lester's *Mosquitos to Wolves*⁴⁰ and Andrew Walton's "The History of the Airborne FAC in Vietnam"⁴¹ cited the USAF foreign internal defense mission to train Vietnamese pilots as the official justification for their presence in Vietnam. In reality, pilots expressed how they often bent the ROEs. When their South Vietnamese pilot trainees were unavailable, American pilots would sometimes pull a hapless farmer into the cockpit. Having any Vietnamese personnel aboard "for training" met the requirements for the American pilot to conduct his missions.⁴²

The following three memoirs cover the FAC experiences across the successive platforms of propeller driven aircraft O-1, O-2, to OV-10. The memoirs are vital sources in providing the FAC voice to the combat experience. *A Hundred Feet Over Hell: Flying with the Men of the 220th Recon Airplane Company Over I Corps and the DMZ, Vietnam 1968-1969* by Jim Hooper detailed his tours in Vietnam flying the O-1 Birdog.⁴³ This highly personal account covered his training through combat and addressed the frustrations over the rapidly changing and restrictive ROE. He communicated the personal trauma of the FAC experience, orchestrating chaos through intense ground fire and destruction.

⁴⁰ Lester, 84.

⁴¹ Walton, 1.

⁴² Kelly, 135.

⁴³ Jim Hooper, *A Hundred Feet Over Hell : Flying with the Men of the 220th Recon Airplane Company Over I Corps and the DMZ, Vietnam 1968-1969* (Minneapolis, MN: Zenith Press, 2009), 1.

Naked in Da Nang, A Forward Air Controller in Vietnam by Mike Jackson and Tara Dixon-Engel provides the Cessna O-2 FAC perspective.⁴⁴ Jackson penned a refreshing, firsthand account of his life during combat as told with a dose of humor and humanity. Jackson's voice and personality shines through and brings the tragedies of life and death with each war story retold. He fought during the 1972 Easter Offensive and took part in the rescue of BAT-21, later made into a movie. Jackson was especially effective at bringing out the human experience of combat beyond just the facts and data of other sources.

Lastly, *A Lonely Kind of War: Forward Air Controller, Vietnam* by Marshall Harrison is one of the most notable memoirs. Harrison served three tours in Vietnam as a FAC aboard an OV-10 Bronco.⁴⁵ He provided stunning details of tactical air-to-ground battles and offered a gripping account of his combat time. His work is most valuable for the technical details of tactics and procedures that bring the history of air combat to life. Harrison's accounts are used most heavily in understanding the psychological stressors of their combat experience.

Gaps in Existing Research and Thesis Addition to the Field

Synthesizing Forward Air Controller Memoirs

This paper examines the impacts of FAC combat on the personnel and unit level. At the personnel level, this thesis will examine the human toll in war and what characteristics shine through the combat experience. At the unit level, this thesis will

⁴⁴ Mike Jackson and Tara Dixon-Engel, *Naked in Da Nang, A Forward Air Controller in Vietnam* (St. Paul, MN: Zenith Press, 2004), 1.

⁴⁵ Harrison, 1.

discuss how units adapted their aircraft and TTPs as the operational environment developed over time. Behind all of the tactical struggles, equipment adaptations and lessons learned, there were pilots who fought and survived the best they could. The human experience is linked inextricably with the science of war. This thesis seeks to honor the daring airmen's bravery, innovation and loss by sharing their combat experience. Additionally, this thesis synthesizes FAC experiences into a unified narrative focusing on the qualities of innovation, audacity and irreverence.

The FACs faced psychological stressors unique to their roles and missions; very different from the larger USAF combat experience.⁴⁶ The jet driving, strike pilots soared over the jungles and rarely saw the dark underside of the jungle. Targets remained as abstract concepts, and were simply coordinates on aerial charts.⁴⁷ The strike pilot did not walk a mile in the Army's boots or face the NVA or VC behind the muzzle flashes. They did not see the enemy in whole or watch their bombs blow them apart. The FAC did.

War is certainly an ugly thing at any altitude, strike pilots on air interdiction missions over North Vietnam paid dearly in airmen and aircraft lost. The FAC's perspective was a different and more intimate affair. Marshall Harrison recounted a four-hour; OV-10 Bronco flight where he was credited with 300 enemy killed by air, yet lost two helicopters and one F-4 during the sortie.⁴⁸

⁴⁶ Harrison, 56.

⁴⁷ Schlight, 8. During an exchange program where strike pilots flew in formation with FAC pilots it became evident that many strike pilots never actually visually identified the targets that they attacked. This was likely due to their fuel limitations and wide areas of responsibilities.

⁴⁸ Harrison, 9.

Leveling at 500 feet, I pointed myself at the impact area . . . I picked up the blinking of automatic weapon fire from the tree line surrounding the bomb blasts. I felt several rounds strike the aircraft and fancied that I could hear the firing of the larger guns . . . The craters were shallow because we had been using instantaneous fusing on the bombs to blow down trees and open up the jungle . . . Around the lip of the shallow craters, several bodies were flung about in the uniquely grotesque postures achieved only by violent death . . . I bored straight ahead, shoving the nose down until I was just missing the tops of the taller trees. Clear of the hottest area, I pulled into a steep climbing turn to 1,500 feet.⁴⁹

Harrison's account highlights the audacious attacks, innovative tactics, and irreverent risk-taking that defied prescribed altitudes and safety protocol. FACs had to become comfortable in both worlds; the USAF's high-tech, upper altitudes as well as the enemy's primeval, jungle floor. Many FACs lived at forward operating bases with the men that they supported and often recognized the voices on their radios pleading for air support.⁵⁰ The FACs served as intermediaries between the enemy and strike pilot. Accomplished FACs could conduct reconnaissance flights in the morning and spot enemy soldiers around their pre-dawn campfires. That same FAC could visually track that band of insurgents to nearby villages and then end their day via marking rounds for the strike pilot's 500-pound bombs.⁵¹ Many FACs lived the war scraping the treetops to avoid gunfire in the slow aircraft versus viewing it from an air base or at 20,000 feet. The cacophony of the Vietnam War produced a unique breed of airmen who exemplified the characteristics of audacity, innovation, and irreverence. They adapted to the environment and overcame the shortfalls of their training, tactics and equipment in order to provide life-sustaining CAS.

⁴⁹ Harrison, 19.

⁵⁰ Kelly, 135.

⁵¹ Ibid., 193.

This thesis examined the impact of combat upon FACs through an analysis of their operational environment and the resulting FAC character traits. The geopolitical situation prior to U.S. involvement in SEA left FACs at a disadvantage. The USAF entered the Vietnam War ill prepared for unconventional warfare. As FACs worked through these challenges, three dominant characteristics emerged. Innovative, audacious, and irreverent FACs worked through the challenges of their limited airframes, the lack of relevant TTPs or doctrine and restrictive ROE.

CHAPTER 2

POST-WORLD WAR II POLITICAL, MILITARY AND ENVIRONMENTAL CHALLENGES FOR THE FORWARD AIR CONTROLLER AIR WAR IN VIETNAM

Introduction

This chapter describes the post-World War II political, military, and environmental context that influenced FAC development in SEA. This chapter examines the political environment, which consists of the international context and U.S. national interests. The Korean War's legacy and the USAF's singular focus on nuclear strike capability defined the military environment. Lastly, this chapter addresses the physical terrain and the human landscape, which made counterinsurgency operations in the jungle so challenging. This chapter is not a comprehensive background of the Vietnam War; rather it is a study of the operational environment that influenced FAC development. This survey of the operational environment is vital to understanding the contextual background of FAC development in SEA.

Political Context for Forward Air Controller Development

Following World War II, the prevailing paradigm viewed the Soviet Union and the United States as diametrically opposed world powers, locked in an existential, zero-sum battle for the world. U.S. policy makers believed that the Soviet Union threatened their interests and established the containment policy to check Soviet expansion.⁵²

⁵² The Executive Secretary on U.S. Objectives and Programs for National Security, *A Report to the National Security Council* (Washington, DC: The White House, April 14, 1950), 6. The Soviet Union design "calls for the complete subversion or forcible destruction of the machinery of government and structure of society in the countries of the non-Soviet world and their replacement by an apparatus and structure

America engaged in proxy wars to prevent Communism from spreading successively across Asia⁵³ and to prevent direct nuclear confrontation with the Soviet Union.⁵⁴

President John F. Kennedy argued that losing Vietnam would result in a cascading “Red tide of Communism.”⁵⁵ In 1955, few Americans could have located Vietnam on any map, yet, ten years later, the Vietnam War dominated the television screens of nearly every

subservient to and controlled from the Kremlin. To that end Soviet efforts are now directed toward the domination of the Eurasian land mass. The United States . . . the bulwark of opposition to Soviet expansion, is the principal enemy whose integrity and vitality must be subverted or destroyed by one means or another if the Kremlin is to achieve its fundamental design.”

⁵³ U.S. Department of State, President Dwight D. Eisenhower News Conference, 1954, excerpt from *Foreign Relations of the United States, 1952–1954. Indochina (In Two Parts)*: vol. 13, part 1, Office of the Historian, Bureau of Public Affairs, accessed June 6, 2016, <https://history.state.gov/historicaldocuments/frus1952-54v13p1/d716>. The Domino Theory argues that the fates of SEA governments were intertwined and if one country fell to communism that soon the others would follow. The theory was widely held throughout several administrations and allied partners. Those who ascribed to the theory feared the failure of Indochina, Burma, Thailand, the Peninsula, Indonesia, then to Japan, Formosa, Philippines and perhaps even Australia and New Zealand. President Dwight D. Eisenhower first commented on the strategic importance of Indochina in 1954. He stressed its importance to the world for humanitarian, economic and regional security reasons. He stressed, “the possible consequences of the loss are just incalculable to the free world.” U.S. policymakers could not accept losing all of SEA and the Pacific to communism therefore; they were forced to defend each country as if the fate of all others were solely reliant upon it.

⁵⁴ The Executive Secretary on U.S. Objectives and Programs for National Security, *A Report to the National Security Council*, 4. “The Soviet Union, unlike previous aspirants to hegemony, is animated by a new fanatic faith, antithetical to our own, and seeks to impose its absolute authority over the rest of the world. Conflict has therefore, become endemic and is waged on the part of the Soviet Union, by violent or non-violent methods in accordance with the dictates of expediency. With the development of increasingly terrifying weapons of mass destruction, every individual faces the ever-present possibility of annihilations should the conflict enter the phase of total war.”

⁵⁵ Wesley Fishel, *Vietnam: Anatomy of a Conflict* (Itasca, IL: F. E. Peacock, 1968), 142-147.

American home. Over the decades, the American casualties⁵⁶ rose to more than 360,000.⁵⁷ The draft sent hundreds of thousands of Americans into war and ripped American society at its seams. Yet policy makers believed that containing the Soviet Union's influence across the globe was an ideological imperative worth fighting.

Cold War

The Cold War operational environment tightly bound geopolitics and battlefield tactics. Politicians feared that a pilot straying too close to China's borders might spark international escalation. These political fears led to strict ROE. The challenging and complex nature of counterinsurgency made the ROE all the more inhibitive for pilots. When ROE subverted mission accomplishment, FACs routinely risked reprimand to break regulations and accomplish the mission.⁵⁸ The Cold War paradigm threatened to divide and polarize the world. The imperialist Americans or the Soviet horde respectively provided ample threat to each other to justify their presence in proxy wars across the globe.

During the Cold War, America needed both a powerful military to stop the Soviets around the world and an agile force to bolster allies in proxy wars. The USAF that was postured to win a strategic long-range bombing war was ill suited for training

⁵⁶ The number of 360,000-casualties is used here instead of fatality figure in order to represent the great number of Americans that were significantly affected by the war. In some ways, the physically wounded Americans had greater long-term impacts on society than did those killed in action.

⁵⁷ Vietnam Veterans Memorial Fund, accessed April 4, 2016, <http://www.vvmf.org>.

⁵⁸ Lester, 173.

partner nation air forces in counterinsurgency. During the Cold War, the majority of USAF resources were dedicated to counter the most dangerous enemy course of action. This means that they were less prepared to face the enemy course of action in the Vietnam War. This was especially evident in the USAF. The USAF Strategic Air Command won the lion's share of resources and left FACs in Vietnam as a much lower priority. The austere USAF support forced FAC units to adapt and innovate with what they had. It was several years before the United States developed a CAS platform uniquely designed to the mission. For years, FACs had to struggle to maintain their World War II era and modified civilian aircraft.

Containment versus the Spread of Communism

Due to the insidious and cancerous nature of Communism, the United States required a policy that employed military forces below the threshold of nuclear world war to defeat it. The U.S. policy of containment was devised to block further expansion of Soviet power, by all means short of war. The United States sought to expose the Soviet's contradictions to the world, to reduce the Kremlin's influence and to foster the seeds of its destruction.⁵⁹

Wars of National Liberation and Proxy Wars

Soviet Premier Nikita Khrushchev's 1961 proclamation of national wars of liberation sought to rally oppressed people worldwide into an ideological war against

⁵⁹ The Executive Secretary on U.S. Objectives and Programs for National Security, *A Report to the National Security Council*, 21.

democracy.⁶⁰ The new era of proxy wars demanded a fundamental change in American foreign policy. America's long-range, nuclear bombers had little utility against low-technology jungle insurgencies. When nuclear weapons were not successful deterrents, then the United States had to develop new policies and conventional military capabilities to address the threat. The Kennedy administration launched several programs to counter Communist ideology and influence across the globe below the threshold of nuclear war. Each element of U.S. national power needed tools to confront Soviet aggression. The Department of Defense charged each branch with developing counterinsurgency strategies to protect American national interests abroad while minimizing armed forces' direct involvement.⁶¹ The USAF's counterinsurgency efforts will be discussed in further depth under the Farm Gate program.

Military Context for Forward Air Controller Development

Forward Air Controller Legacies from the Korean War

While analyzing the impact of protracted, air combat one thematic observation repeatedly surfaced. The American military has demonstrated a cyclical propensity to forget its hard-won lessons. Following the Korean War, the Army and USAF largely abandoned their joint integration in CAS due to budget constraints, faulty assumptions on the future of war, and inter-service rivalries.⁶² The USAF disbanded FAC aircraft

⁶⁰ Forrest Paige and Bing Li, "Forward Air Control during the Vietnam War," Academia, April 16, 2013, accessed March 5, 2016, http://www.academia.edu/3684454/Forward_Air_Control_during_the_Vietnam_War, 7.

⁶¹ Ibid., 8.

⁶² Walton, 21.

squadrons along with the TACPs and the Tactical Air Control System. Regardless of combat proven utility, the USAF viewed them as temporary solutions to unique problems that were unlikely to occur again.

While there was some utilization of airborne forward air observers and artillery spotters in World War II, the Korean War was the first war to use FACs effectively. The USAF would employ them in Vietnam and beyond. Despite having seen the tremendous value of airborne FACs during the Korean War, the common belief was that the evolving sophistication of anti-aircraft weaponry precluded future use of slow-moving FAC aircraft.

CAS tactics, personnel, and equipment are particularly at risk during inter-war periods because they are gap capabilities between the USAF and Army. A basic tenet of USAF airpower theory maintains that the USAF can achieve the greatest impact when focused on strategic objectives. Accordingly, any USAF support to ground maneuvers should not detract from the greater USAF strategic focus. After the Korean War armistice, the USAF dissolved its CAS/FACs networks. The force structure shifted back towards airpower-centric strategies. The USAF slowly abandoned the gains associated with CAS operations during the Korean War. The USAF disbanded the backbone of CAS capability, Mosquitos T-6 FAC aircraft squadrons as well as the TACPs and the Tactical Air Control System. Regardless of combat proven utility, USAF leadership viewed the CAS assets as only temporary solutions to unique problems that were unlikely to occur again.⁶³

⁶³ Lester, 75. At the close of the Korean War, the Pathfinder fighter-bomber technique was developed to mark targets during higher threat missions. Experienced

Following the armistice, a Joint Air-Ground Operations Conference held in Seoul, Korea, recommended that joint air-ground doctrine be written to standardize employment. However, after months of drafting documents, inter-service rivalries stalled the process. The Army and USAF failed to codify their effective CAS lessons-learned from the war and essentially parted ways, agreeing to disagree. The result was a post-war military without personnel, organization, or equipment for airborne FAC operations.⁶⁴ Although being a strong wartime proponent of the FAC in the Korean War, 8th Army Commanding General Matthew Ridgway, later stated that the joint CAS initiative was dead due to the failure to draft a joint Army-USAF statement.⁶⁵ The failed agreement effectively terminated all support of personnel, equipment, and funding for FAC operations. The Army desired organic air support and felt that the USAF was unwilling to provide required support. The Army also preferred a propeller driven aircraft and desired input into deciding what platform would deliver their CAS.⁶⁶

fighter pilots would take off ahead of the bombing fleet and engage targets thereby marking them for the follow on aircraft. The Vietnamese landscape and irregular enemy formations made the Pathfinder mission far more difficult than during the Korean War.

⁶⁴ Lester, 75; Jeremy W. Siegel, "The Debate is Over: Close Air Support in Korea and Vietnam" (Monograph, U.S. Marine Corps Command and Staff College, Quantico, VA, 2011), 1. This MMAS thesis concludes that U.S. Marine Corps CAS in Korea and Vietnam were more effective than USAF CAS due to: (1) mature and continually advancing doctrine and tactics; (2) better joint integration and habitual training relationships; and (3) greater emphasis on CAS as the priority mission of Marine Corps TAC air.

⁶⁵ Walton, 21.

⁶⁶ John Schlight, *Help from Above: Air Force close Air Support of the Army 1946-1973* (Washington, DC: Air Force History and Museums Program, 2003), 174-177.

The SAC driven USAF favored the jet solution and focused on USAF-centric missions and platforms. The USAF insisted on their independence and ability to support the Army's CAS demands as needed.⁶⁷ U.S. Strike Command's manual on joint task force operations after the Korean War omitted the concept of airborne FACs altogether.⁶⁸ A later version of the manual mentioned the FACs, but required the use of two fighter pilots aboard the aircraft and dictated that this procedure would only be used in extremis. The net result produced an USAF with largely the same doctrine it had in 1947 to what it practiced in 1966. It also reinforced an inability to codify any of the wartime TTPs gains.⁶⁹

After the Korean War, the prevailing logic was that the last war was an aberration never to be repeated.⁷⁰ USAF leaders assumed that the next war would be wholly different and incompatible to the CAS doctrine developed in the previous war. They assumed air defenses would be too deadly for CAS platforms.⁷¹ Therefore, the U.S. military failed to codify joint doctrine or retain the men, tactics, and equipment vital to CAS. The post-war force structure left the United States as ill prepared for the next war as they were for the last one, without CAS doctrine or appropriate weapon systems. The

⁶⁷ Lester, 74-77.

⁶⁸ Jan Churchill, *Hit My Smoke!: Forward Air Controllers in Southeast Asia* (Manhattan, KS: Sunflower University Press, 1997), 6-9.

⁶⁹ Walton, 21.

⁷⁰ Schligh, *Jet Forward Air Controllers in SEASIA*, 2.

⁷¹ Harrison, 24.

U.S. military quickly shifted its focus from the unpleasant realities of full-scale conventional war to nuclear strategic deterrence.

Nuclear Strategy Over-Reliance

Furthermore, the USAF failed to appreciate the differences of employing airpower in counterinsurgency versus conventional war. Senior USAF leaders staunchly held to their nuclear strategy and were reticent to change their force that was structured to defeat the Soviet threat.⁷² The Vice Chief of Staff of the Air Force General Frederic Smith, testified to the House Armed Services Committee in 1962:

It is our conviction . . . that the core of our security planning lies in the maintenance of an effective capability to prosecute successfully a general war . . . In the broad spectrum of conflict called limited war, a variety of responses may be desirable, ranging all the way from a show of force through the delivery of nuclear weapons.⁷³

The general's comments revealed their assumption that warfare was generally the same regardless of enemy. At the time, the military leaders were tailoring the response by scale instead of radically altering the form.

The prevailing USAF logic held that the long-range, strategic bombing and nuclear focused strategies did not need to be altered for counterinsurgency instead of

⁷² Frederic Smith, "Posture of the USAF: Statement to the Committee on Armed Services, House of Representatives," *Airmen* (May 1, 1962): 5. General Frederic Smith, the Commander of USAF Europe in 1960, went even further. He advocated the use of nuclear weapons in "any war short of direct combat between the great powers." He writes, "it is clear that nuclear weapons cannot be used haphazardly if we are to keep the war limited and avoid undue destruction to the friendly countries we are defending." Nevertheless, "the commander on the spot must have the option of expending nuclear weapons in the zone of conflict within his allocated stockpile in accordance with his judgment of the situation."

⁷³ *Ibid.*, 20.

major war. When General Frederic Smith reflected on American airpower application through World War II, the Korean War, and the French experience in Indochina, he advocated using nuclear weapons for “situation control.” He outlined uses for nuclear weapons to, “obviate enemy assembly, movement, and combat operations.” For example, “a low-yield nuclear bomb could be used to block enemy movement through a rain-forest corridor” or to “interdict choke points in mountain ranges.”⁷⁴ Nuclear weapons, in the general’s opinion could even be used to “support ground forces in close contact with the enemy”⁷⁵—although he did point out that friendly forces should be forewarned of the nuclear strike in order that adequate safety precautions could be taken.⁷⁶

Politics, inter-service rivalries, and squabbling for resources, all had their parts to play in forming these contextual frames. Such thinking and strategies represent tragic errors in judgment and a gross misunderstanding of the war ahead. This strategy mismatch placed FACs into a new war with the wrong strategy, inadequate and antiquated equipment, and insufficient TTPs. The innovative, audacious, and irreverent FACs struggled to overcome this military environment. Leaders failed to realize that the incredible power of nuclear weapons did not yield political power across the spectrum of conflict. The U.S. technological superiority did not result in unequivocal dominance. Not only was the USAF improperly postured for the Vietnam War, for many years, they

⁷⁴ Smith, “Posture of the USAF: Statement to the Committee on Armed Services, House of Representatives,” 22.

⁷⁵ Frederic Smith, “Nuclear Weapons and Limited War,” *Air University Quarterly Review* (Spring 1960): 10.

⁷⁶ James S. Corum and Wray R. Johnson, *Airpower in Small Wars: Fighting Insurgents and Terrorists* (Lawrence: University Press of Kansas, 2003), 469.

continued to believe that no changes were needed. FACs' insistence to the contrary was largely ignored and FACs had to continue to make do with what they had.

Often in war, the fighting men must shed great amounts of blood to overcome entrenched doctrine. The bureaucracies were slow to acknowledge the limits of their favored strategies, forcing the fighting man to adapt and improvise with the tools he had. The warriors, fighting at the tactical levels must prove the pre-war assumptions wrong and prove the truth by innovating and adapting into what really works. FACs had to fight their way up the chain to force the bureaucracy to change their theories and alter their assumptions. The reoccurring tragedy is when those hard fought lessons are abandoned after conflict ended.

Nuclear Airpower Strategy Ill Suited for Counterinsurgency

Following the Korean War, the Eisenhower administration desired an USAF that could deter the Soviets through long-range strategic bombing. The administration believed that the air power deterrent would prevent costly, future wars like Korea.⁷⁷ The USAF's driving threat was going head-on against advanced Soviet weaponry. SAC focused on long-range nuclear bombers and fast jet aircraft. That USAF gave little attention or budget toward slow, tactically focused, propeller driven aircraft. Therefore, low-end, niche aircraft designed for CAS was not a priority.⁷⁸ When developing new CAS aircraft was not viable, the USAF begrudgingly repurposed old aircraft or purchased

⁷⁷ Paige and Li, 8.

⁷⁸ Walton, 36.

cheap, civilian models and adapted them.⁷⁹ However, the USAF designed for long-range strategic bombing was inappropriate for strafing insurgents in the jungle. There was little doctrine, tactics, or aircraft suitable for integrated air-to-ground support of counterinsurgencies. USAF pilots were forced to relearn bloody lessons and modified the ill-suited aircraft available into what they needed. Institutionally, the USAF nuclear strike paradigm set FAC units on a difficult path.

United States Failed to Learn from French Defeat

From the war's outset, American hubris thwarted a historical appreciation for the war. The United States began its involvement in SEA by ignoring Vietnam's colonial history and dismissing the French as inept. A number of American analysts studied French operations in Vietnam but the U.S. military largely dismissed the French experience as an abject failure. Any lessons garnered were cautionary at best.⁸⁰ The French High Command compiled a three-volume study, "detailing the inherent complexities of using airpower to defeat guerrillas."⁸¹

More importantly, French experience called into question the central tenets of airpower theory as articulated by the USAF.⁸² Specifically, the French referred to USAF

⁷⁹ Coincidentally, USAF leaders again used the argument regarding retiring the USAF's premier CAS aircraft, the A-10. In a time of budgetary reductions, the USAF says it cannot afford niche, single role aircraft when they must instead focus on high-end full spectrum fighters to counter advanced threats. When money is diverted for smaller SOF missions, civilian aircraft are often modified or leased to meet suspected temporary or peculiar mission requirements.

⁸⁰ Corum and Johnson, 225.

⁸¹ Ibid., 227.

⁸² Ibid.

theorists as subscribing to the “Extremist thesis of Douhetism.”⁸³ France’s air power experience in Indochina was contrary to Douhet’s ideas. The French concluded that they were unable to destroy insurgent vital centers or break the enemy’s will through bombing campaigns. They also found the obsession with the strategic offensive to be useless when attempting to confront a tactically based insurgent. The French study even contained several confiscated Vietminh documents detailing how guerrillas could thwart airpower. It appears that the United States did not receive copies of these documents until 1967 and they did not influence USAF thinking.⁸⁴ Not only did the USAF fail to appreciate French and Vietnamese history but they also neglected their own. In 1965, the Chief of Staff of the Air Force General John McConnell, described the use of airpower in Vietnam as “truly unique in the annals of aerial warfare”⁸⁵ thereby indicating a total neglect of historical precedent. The world’s most capable air force uniformly rejected the French lessons learned that airpower could not be applied in mass for effect. If bombing campaigns failed to achieve initial results, the only solution was to bomb more. The western way of war relied on technological overmatch and air supremacy. If at first they did not succeed, simply increase the scale of airpower. The counterinsurgency and ideological motivations of the VC and NVA escaped them.

⁸³ Dennis Drew, “U.S. Airpower Theory and the Insurgent Challenge: A Short Journey to Confusion,” *Journal of Military History* (October 1998): 813.

⁸⁴ Corum and Johnson, 227.

⁸⁵ Gen John P. McConnell, USAF, “The Folly of ‘Strategic Persuasion’,” *Air Force Magazine* (February 2011): 71, excerpts from “The Role of Airpower in Vietnam” (Address by Gen John P. McConnell, Chief of Staff, U.S. Air Force, before the Dallas Council on World Affairs. Dallas, TX, September 16, 1965), accessed July 22, 2016, <http://www.airforcemag.com/MagazineArchive/Documents/2011/February%202011/0211keeper.pdf>.

Environment Context for Forward Air Controller Development

Contrary to the USAF's Cold War assumptions, counterinsurgency and jungle warfare posed a new threat for which the current force structure was ill prepared. The physical and human environment of SEA created new challenges. FACs innovated and adapted their TTPs and equipment to wage war against an elusive enemy in a restrictive jungle environment. The FACs' reconnaissance, area familiarity, and audacious airmanship enabled airpower. The FACs converted the high speed, high altitude airpower against the obscured jungle enemy.

The FAC encountered NVA and VC forces throughout the war and both adversaries presented unique challenges. Combating insurgents with airpower is challenging in any environment. Fighting insurgents in limiting terrain is even more vexing. Target identification of enemy combatants can be nearly impossible depending on the enemy's actions. When insurgents wish to blend and not engage in hostile acts, they can be nearly impossible to detect. However, not every insurgent blended with the population equally. In the initial stages, as VC moved into a new village to attempt to co-opt the population, their outsider status was easier for aerial reconnaissance to identify. As more VC trafficked the area, they altered the local village patterns of life. Those subtle changes were discernible from the air.

FACs could identify early morning campfires, isolated campsites and foot traffic outside of farmers' normal paths. Some FACs grew so familiar with their area of operations that they distinguished enemy activity based on the number of farmers working the fields. Too many working the fields meant VC were alongside and too few meant that there was a recruiting campaign ongoing. An absence of villagers' was also

indicative of trouble. Villagers knew when to stay home to avoid the pending ambushes.⁸⁶ FACs could even utilize water buffalo as sources of intelligence against enemy activity. The animal was often the peasant's most valuable possession and they could not risk losing them to a stray bullet in a firefight. At the first sign of danger, the farmers corralled the animals into huts for safekeeping.⁸⁷

Compared to small bands of VC, the NVA movements were more readily identifiable via air as they traveled in larger groups. New foot bridges were also a sign, farmers rarely strayed from their normal paths. Foot traffic was nearly impossible to hide during the wet season with mud and disturbed foliage.⁸⁸ As the war progressed, the enemy was forced to limit movement to times of low aircraft visibility, inclement weather, or under the cover of darkness. Many of the NVA were foreign to the local landscapes, which made their presence more disruptive and easier to track. However, the better-trained NVA often carried devastating anti-air defenses and employed more aggressive tactics.⁸⁹ Rooting out NVA or VC from the jungle became a perplexing cat and mouse game of adaptation and innovation. FAC reconnaissance missions were highly valuable to the brigades they supported. Transiting strike aircraft could not duplicate the FACs' high quality intelligence support without the same local area familiarity. The unique environment of Vietnam and the elusive enemy made FACs increasingly vital for effective airpower.

⁸⁶ Harrison, 125.

⁸⁷ Walton, 56.

⁸⁸ Harrison, 124.

⁸⁹ Ibid., 114.

Additionally, the terrain brought enemy combatants into extremely close proximity of one another. Ambushes frequently took place within danger close ranges.⁹⁰ The VC and NVA learned to press tightly against the U.S. forces to avoid easy targeting by artillery and aircraft. FACs were responsible for mitigating danger to friendly personnel and needed great situational awareness to avoid fratricide and destroy the enemy.

OV-10 pilot Marshall Harrison recounted sage advice from an instructor pilot regarding the complexity of providing CAS in the jungle. He summarizes the FACs' burden to decipher the chaos of the Vietnam landscape below them:

Wait until you're the only FAC around . . . and the nineteen-year-old platoon leader doesn't even know where he is, much less the rest of his people. He'll give you a grid that's probably wrong because he doesn't know what else to do and he's getting his butt kicked properly. You're going to put those coordinates on your map and all you're going to see there is green-nothing but heavy tree growth. No landmarks anywhere. And you ain't going to know where to put those bombs. Put just one of them in the wrong place and you can do more damage than a whole NVA regiment. That kid down there will be crying to put ordnance within fifty meters of his position because he's being overrun and you look down and there, still ain't nothing visible there but triple canopy forest no matter what's going on underneath it. That green square is an ass-kicker, I tell you. 'Bout all you can do is put one bomb and hope for the best.⁹¹

The elusive nature of the enemy and the challenging jungle terrain forced the FAC into a position of vital importance. He provided the life-saving and life-ending connections between air and ground combat. Over time, the Vietnam War became more deadly and the need for CAS increased. Simultaneously the U.S. military became aware of the

⁹⁰ Danger Close is the distance at which there is a high probability that friendly forces will be adversely affected by the munition. Actual danger close distances vary based on the type of weapon employed but are only used in extremis.

⁹¹ Harrison, 79.

capability gaps in the existing force structures and had to increase manpower and air assets to fulfill the emerging requirements.

Conclusion

A comprehensive survey of the operational environment revealed several challenges to FAC development in SEA. During the Cold War, the American strategy of containment and fighting proxy wars generated a military response to achieve political objectives in Vietnam. The United States answered the Soviet threat with an expensive and global airpower capability. The USAF dedicated itself to long-range, strategic bombing and nuclear deterrence. However, the USAF's force structure designed to counter to the Soviet threat was ill suited to fighting jungle insurgents. The USAF's early days in Vietnam demonstrated a dangerous lack of understanding of the war it was fighting.

The legacy of the Korean War left the Army and USAF without binding joint agreements regarding CAS. Following the Korean War, the USAF discontinued its CAS program and aircraft. The prevailing assumption held that CAS aircraft and personnel were not needed in future wars. When the requirement for CAS emerged in Vietnam, the USAF had insufficient CAS doctrine, TTPs, and aircraft for jungle combat. Senior USAF leaders proved unwilling or incapable of recognizing that Vietnam represented a wholly different type of war. It took several years for the USAF to even recognize that alternative aircraft were needed for SEA. The cumulative effect of the operational environment put FACs in a very bad starting position. Starting with so little to fight with made the FAC achievements all the more impressive. It was in this context that FACs adapted and innovated. FACs had to circumvent institutional challenges with a flair of

irreverence. They also had to fly with audacity to brave the combat dangers of their underpowered and outgunned aircraft.

CHAPTER 3

FORWARD AIR CONTROLLER EXPERIENCES FROM FARM GATE TO AMERICAN WITHDRAWAL (1962-1973)

Evolution of U.S. Air Force Involvement throughout Vietnam War

The evolution of U.S. military approaches in Vietnam was a slow and reactive escalation of limited engagements. The USAF struggled to adapt its nuclear strategic bombing force to the combat realities of Vietnam. The U.S. involvement in Vietnam began with a handful of personnel advising foreign internal defense. Frustrated by the limitations of their partner forces, the U.S. military pushed for authorization to prosecute the war on its own. Lyndon B. Johnson escalated the number of U.S. forces after 1964. The Gulf of Tonkin incidents in August 1964, the attack on Bien Hoa Airbase in November 1964, and the VC attack on Pleiku in February 1965 prompted increased American responses and deployments. The U.S. government retaliated with ever increasing, punitive bombing efforts.⁹² FACs were vital to air strikes. They directed airstrikes using slow FAC aircraft, fast jet aircraft and ground-based combat control FACs. Regardless of the platform, FACs faced disproportionate threats compared to the strike aircraft they controlled. The numerous limitations of their aircraft placed even greater demands on them. FACs audaciously controlled airstrikes against heavy anti-aircraft fire, and engaged the enemy on extremely low and slow approaches. They created unprecedented bombing methods and enabled strikes through austere airfield controls. They irreverently overcame bureaucratic limitations and safety protocols to attack the

⁹² Paige and Li, 12.

enemy and defend friendly forces. Despite increased bombing, the American military struggled to defeat an elusive enemy that effectively exploited its weaknesses and avoided its strength.

The USAF's first personnel in Vietnam advised VNAF in what is now called foreign internal defense (FID). U.S. air advisors trained the VNAF from basic flight training to a highly advanced, integrated CAS. Essentially, the air advisors attempted to turn peasant farmers into aces during an ongoing war. Due to cultural and institutional limitations, although the VNAF partners were trained and equipped, they were unable to employ airpower effectively against the VC and NVA. The need for air support increased as more and more U.S. advisors accompanied their South Vietnamese allies in the field. These operations were riskier and increased the number of enemy engagements. Political restrictions influenced ROE and limited USAF direct involvement in combat. Without an adequate VNAF capability to perform these missions, USAF advisors took a more active role at the tactical level. Innovative, audacious, and irreverent FACs pushed the boundaries to defend friendly forces and destroy their enemy.

Developing the Advisor Model

Following World War II, the USAF decommissioned its Special Operations unit, the First Commando Group. After 1947, the USAF believed its future needs for special operations or non-standard techniques could be met by training airmen as needed.⁹³ As a result, the USAF had allowed their non-standard airmanship skills of long-range infiltration /exfiltration, psychological operations, and aerial resupply missions to

⁹³ Walton, 25.

atrophy. In post-war, budgetary reallocations, the USAF decided that non-standard skills were not important enough to retain dedicated organizations.⁹⁴ Therefore, when the need arose for an innovative approach to airpower, the USAF had to start the program from nothing and relearn many hard-fought lessons.

Like their Army counterparts, the USAF would begin their long employment in Vietnam with a handful of specially trained advisors. However, at the time, the USAF did not have any existing FID advisors or specialized units to address the Kennedy administration's new proxy war strategy. In order to meet the new mission requirement, the USAF created the 4400 Combat Crew Training Squadron (CCTS) on April 14, 1961.⁹⁵ The 4400 CCTS, code-named, Jungle Jim, was a low profile force. Its primary mission was to conduct combat operations and train partner nation air forces in counterinsurgency warfare. They operated in "limited involvement, low intensity conflicts under austere conditions."⁹⁶ The unit trained to assist any partner force worldwide and was not limited to SEA. In 1961, the 4400 CCTS was given the task to organize, train, and equip a unit to:

1. Train USAF personnel in World War II-type aircraft and equipment.
2. Ready a limited number of aircraft for transfer, as required to friendly governments.
3. Provide advanced training of friendly foreign air force personnel on the operation and maintenance of World War II-type aircraft.

⁹⁴ Walton, 25.

⁹⁵ Chief of Staff of the Air Force/AFOOB, Letter, Subject: Final Operating Concept 'Jungle Jim', Chief of Staff of the Air Force/AFOOB, Washington, DC, April 27, 1961.

⁹⁶ Ibid.

4. Develop or improve conventional weapons, tactics, and techniques of employment suitable to the environment of such areas as defined by the Joint Chiefs of Staff.⁹⁷

In the final phase of the FID program, American instructors would fly alongside and assist the allies in devising tactics specific to their environment and enemy. American advisors exploited the wide berth of phase four, “develop tactics suitable to the environment” to authorize an enormous scale of wartime activities. U.S. advisors viewed the VNAF’s tactical proficiency failures as justification for U.S. pilots to transition into full-scale combat roles. Under the advisor model, Americans were pulled deeper and deeper into active combat roles, albeit with a thinly disguised veil of combat advisement.⁹⁸

The 4400th CCTS air commandos were tasked to refit and retrain on World War II era aircraft. This is another example of the recurring theme of the U.S. military in abandoning past military successes only to resurrect them later from the ash heap. Mothballed planes were pulled from aircraft graveyards and recommissioned. Surprisingly the American aircraft reserve fleets maintained the relics sufficiently well to allow for this reuse.⁹⁹ However, as will be discussed later, this cheap recycling was not without cost in American lives. The 4400th’s eclectic fleet, in theory would cover all of the requirements to stand-up a fledgling air force for counterinsurgency operations. The 4400th boasted

⁹⁷ LtCol Wray R. Johnson, USAF, “Whither Aviation FID?” *Airpower Journal* (1997): 70.

⁹⁸ Anthony, 52.

⁹⁹ Walton, 26.

thirty-two aircraft: eight T-28 trainers,¹⁰⁰ eight B-26 bombers¹⁰¹ for reconnaissance/strike, and sixteen C-47 for airlift and psychological operations.¹⁰² The 4400th's aircraft represented a modest attempt to equip developing countries with low cost equipment that they could maintain long term. Despite modifications, the aged aircraft and novice VNAF pilots proved incapable of meeting the ever-increasing enemy threat.¹⁰³

The Geneva Accords limited foreign military advisors to 585 personnel for both North and South Vietnam. Both sides eventually abandoned the Geneva restriction but it served to limit their overt presence in country. This restriction also bound all foreign

¹⁰⁰ Walton, 27. The T-28B Trojan was a two seater, trainer and light attack aircraft with great visibility, slow speed; long loiter time, and heavy payload capacity. In order to improve its utility as a FAC aircraft, the USAF refitted the T-28's vital areas with armor plating, mounted two 50-caliber machine guns and added attachments to carry up to 1,500 pounds of rockets and bombs.

¹⁰¹ J. Rickard, "Douglas B-26 Invader in Vietnam," Military History Encyclopedia on the Web, June 2, 2009, accessed May 10, 2016, http://www.historyofwar.org/articles/weapons_B-26_Vietnam.html. The B-26 Invader was a well-suited bomber aircraft that initially received no modifications from its prior service life in World War II and Korea. Two to three aircrew manned the aircraft, filling roles as bombardiers, navigators, or gun loaders. The Invader could only level/glide bomb since its design could not withstand the higher gravity stress required for dive bombing. As a result, the Invader relied on FAC control to engage targets. During the B-26's tenure in Vietnam it would require modifications to strengthen its engines, harden its wings and expand its bombing capacity from 4,000 to 8,000 pounds; Hal Borland, "Plane of Many Faces," *Popular Science*, (July 1, 1945): 15. These modifications allowed the versatile aircraft to thrive as a gunship. The B-26 and later the A-26 carried multiple configurations of guns, with up to four, 50-caliber machine guns in the nose and eight in its wings.

¹⁰² Walton, 26-27. The C-47 Gooney Bird was a cargo aircraft, modified from its World War II service to hold twice as much fuel. Its landing gear was reinforced for unimproved, short runways and high altitude airfields. A later variant, the SC-47 added racks for loudspeakers and dropping paraflares. The Gooney Bird also became the primary parachute insertion platform for special operations. As with most of the Farm Gate aircraft, some C-47s were later converted to gunship roles in CAS.

¹⁰³ Ibid., 27.

military action to advising roles. In 1961, members of the 4400th CCTS deployed USAF commandos to Vietnam for an operation, code-named "Farm Gate."¹⁰⁴ Farm Gate pilots volunteered for the unit, believing they were going to conduct direct combat operations in Vietnam. Their unit was "designed to fight" and was "singled out" for deployment because its combat capacity would shore up sagging VNAF morale.¹⁰⁵ Prior to their deployment, General Curtis LeMay briefed Colonel Benjamin King, the squadron commander, that his Farm Gate pilots were going to conduct combat operations against the VC.¹⁰⁶ The USAF FID program trained the VNAF to conduct aerial reconnaissance and armed interdiction for COIN operations. In an effort to avoid the perception of U.S. aggression, the USAF required personnel to fly in aircraft under the South Vietnamese flag. Regulations also prohibited American pilots from attacking any targets without a VNAF crew aboard.¹⁰⁷

In November 1961, the CCTS detachment 2A deployed to Bien Hoa Airfield in South Vietnam and began training the VNAF.¹⁰⁸ Over the next several months, the

¹⁰⁴ Paige and Li, 9.

¹⁰⁵ Office of Air Force History, *History of the Director of Plans, USAF, 1 July-31 December 1961, Vol. II* (Washington, DC: Office of Air Force History, 1962), 78.

¹⁰⁶ Anthony, Message, CINCPAC to Chief, Military Assistance Advisory Group (MAAG) Vietnam, 16 November 1961.

¹⁰⁷ Paige and Li, 9.

¹⁰⁸ When the first Jungle Jim pilots arrived in Vietnam, they were greeted with the peculiar Air Traffic Control remark, "tanks on the runway." This bizarre transmission reached them on the final leg of a two-week long, 75 flying-hour trek from Eglin Air Force Base, Florida. As they circled the airfield, they indeed found two tanks, with canons fixed on their cockpits. The American pilots had the unfortunate luck of arriving on the same day that some VNAF pilots had launched a failed coup against the presidential palace in Saigon. After some quick explaining, the pilots proved their

4400th began Operation Farm Gate and grew to include four C-47s, four B-26s, and eight AT-28s. They lived in Spartan conditions in the early days of the operations often sleeping under the wings of their aircraft when standing alert for distant fire base support.¹⁰⁹

On December 6, 1961, the Joint Chiefs of Staff authorized USAF pilots to attack enemy combatants—only if VNAF students were aboard to deliver the ordnance.¹¹⁰ Additional guidance dictated that no USAF or VNAF pilot deliver ordnance in South Vietnam without FAC control and a “cleared hot” call. The VNAF also stipulated that USAF could only employ ordnance when authorized by Vietnamese FACs.¹¹¹ VNAF higher headquarters voiced strong concerns of air-to-ground fratricide and wanted an extra measure of control. As troops-in-combat calls became more frequent, U.S. pilots felt severely constrained by the ROE that required VNAF pilots in the lead. VNAF pilots were qualified, however, their response times and marginal proficiency left American airmen feeling that the air support was lacking.¹¹² The cumbersome approval processes limited VNAF competency and endangered lives.

innocence and avoided the tank firing squad. Their first experience was a fitting introduction to the confusing clash of cultures and technology that became the Vietnam War.

¹⁰⁹ Kelly, 133.

¹¹⁰ Emmett O'Donnell, *History of CINCPAC Command: Message, JCS to CINCPAC 6 Dec 1961* (Washington, DC: Office of Air Force History, 1961), 1.

¹¹¹ Anthony, 26.

¹¹² Paige and Li, 9.

Farm Gate deployed to Vietnam expecting full combat operations, however, their primary role was limited to advising and training. Chiding under the restrictions, the aggressive, irreverent, and innovative pilots began stretching the rules in order to fight. The letter of the law stipulated that all sorties must have a Vietnamese citizen aboard. Usually VNAF pilots would fill that role; however, when they were unavailable or unwilling the ingenious advisors found alternate means. This often resulted in American pilots grabbing any Vietnamese bystander for their sortie.¹¹³

At times, U.S. pilots violated their advisory roles per the Geneva Accords and acted in contravention of U.S. regulations and ROE. FACs also accepted great risks, both personally and professionally, for the sake of others. They played a dangerous game to go against policy and intent in order to fight the war in accordance with what they viewed as tactical requirements. This is an oft-recurring example of U.S. pilots demonstrating tactical insubordination and aggressiveness for the sake of the mission. However, as combat swelled, despite the advisor's creative solutions, the ROE mandating VNAF crew participation constrained USAF effectiveness.¹¹⁴

Over the course of the USAF advisor program, the air commandos succeeded in teaching the basics of airmanship. However, cultural and institutional limitations of the VNAF hampered the larger strategic aims of the program. The VNAF were not capable of meeting the rigorous combat objectives of their elusive enemy. The VNAF pilots

¹¹³ Kelly, 135.

¹¹⁴ Robert F. Futrell, *The United States Air Force in Southeast Asia: The Advisory Years to 1965* (Washington, DC: Office of Air Force History, 1981), 122.

continually frustrated their American advisors with an unwillingness to engage the enemy aggressively.¹¹⁵

The VNAF had several good reasons for conservative flying. The Ngo Dinh Diem government inflicted severe punishment, to include imprisonment, against any VNAF pilot responsible for fratricide or damage to aircraft. This policy deterred aggressiveness or risk-taking on behalf of the ground forces. Additionally, within the VNAF, there was a tremendous distrust of superior officers and the government due to rampant corruption. It became increasingly obvious to the advisors that they could not rely on the VNAF in the heat of combat.¹¹⁶

The language barriers severely confounded interoperability. This also gave the VNAF plausible deniability to ignore FAC instructions to their VNAF strike aircraft. According to Marshall Harrison, VNAF A-1 pilots usually neglected to follow FAC instructions on restricted attack headings or other air coordination measures. They burned straight into the target area towards the point they perceived as the target, dropped everything, and then returned to base. However, their direct approach did have its advantages. “They flew over the target, rolled the nose nearly vertical into a dive, and came straight down . . . They usually dumped everything on one pass, and the effect, if they were on the correct target, could be devastating.”¹¹⁷

Despite pilot challenges, the USAF viewed the Farm Gate program as a success and worthy of expansion. In order to increase the numbers of eligible personnel in

¹¹⁵ Futrell, 143.

¹¹⁶ Paige and Li, 9.

¹¹⁷ Harrison, 24.

January of 1963, the Air Force Chief of Staff waived the requirement for Farm Gate participants to have counterinsurgency training.¹¹⁸ This streamlined the deployment timeline yet failed to recognize the Special Operations Forces (SOF) truth that SOF cannot be mass-produced.¹¹⁹ By February 1963, Farm Gate was authorized 42 aircraft and 275 personnel.¹²⁰

The initial operating concept for employing airpower against the VC relied on young Vietnamese officers as ground-based FACs. These VNAF officers served in the ground units most likely to make enemy contact. However, these poorly trained personnel proved ineffective at coordinating CAS and they were relegated to radio operator roles. They simply relayed strike requests between commanders and their higher headquarters.¹²¹ It became quickly apparent that they needed an alternate solution.

In view of the Vietnamese radio operator limitations, the next attempt was to place U.S. FAC trainers with Vietnamese counterparts. This effort constituted the USAF's first involvement in the ground war and was similar to the Korean War TACP model. Fighter pilots acted as ALOs, supplemented with an Army jeep, a radio, and radio operators. The ground-based TACP continued throughout the war yet suffered from the restrictive terrain and limited line of site communications. The rough jungle terrain

¹¹⁸ Chief of Staff of the Air Force/AFOOB Letter.

¹¹⁹ Ibid.

¹²⁰ Walton, 32. In July of 1963, General LeMay considered USAF's involvement in Vietnam to be well enough known to declassify the mission and authorize the name change from Detachment 2 to the 1st Air Commando Squadron under the 34th Tactical Group.

¹²¹ Ibid., 30.

considerably limited the TACP's movement. Their unarmored jeeps were highly susceptible to enemy fire. As the ground war developed, the poor mobility and visibility of the TACP caused serious problems in servicing air support requests.¹²²

Additionally the air advisors found more cultural challenges, which limited their VNAF counterparts' effectiveness. VNAF FACs faced several disincentives that prevented them from successfully employing American-styled combat operations. The South Vietnamese government had strict policies to severely punish or imprison VNAF FACs that returned with aircraft damaged by ground fire or if they accidentally injured ground personnel.¹²³ Combined with low morale for a long war ahead, the VNAF FACs were "unaggressive and unreliable" controllers.¹²⁴

Transplanting advanced war machines to a society of sustenance farmers with institutional disincentives proved to be a combat-ineffective policy. Advisors could instruct the tactics and provide the equipment, but they could not create the professional culture or rouse the aggressiveness required to conduct effective CAS in the triple canopy jungles.¹²⁵ As the remaining decades of combat revealed, even the world's premier USAF

¹²² Walton, 31.

¹²³ Office of Air Force History, *History of the 2nd Air Division* (Washington, DC: Office of Air Force History, 1981), 110.

¹²⁴ Lester, 97.

¹²⁵ Douglas Pike, *Conduct of the Vietnam War: Strategic Factors, 1965-1968* (Washington, DC: U.S. Army Center of Military History, 1986), 130; Kelly, 172-174. Rustic backgrounds did not limit Hmong pilots trained in Laos. The Americans involved in the Central Intelligence Agency sponsored program to train Laotians to fight the North Vietnamese had tremendous respect for the aggressive Hmong pilots. They routinely strafed enemies at 20 feet above ground and flew back-to-back sorties throughout daylight hours.

had tremendous difficulties in successfully waging war in Vietnam. As combat intensified, the limited advisor model forced U.S. pilots to engage more directly to save Americans lives.¹²⁶ During this time the American FAC community also developed an irreverent knack for bending regulations. The combination of highly restrictive and politically charged ROE plus minimal U.S. military oversight resulted in enough leeway for aggressive FACs to take matters into their own hands.

Farm Gate pilots faced steep learning curves. The combat environment combined with their World War II era planes presented difficult challenges. The pilots adapted and developed new tactics as they gained experience. Initially, they loaded bombs and napalm on B-26 wing racks.¹²⁷ Unfortunately, the pilots occasionally confused the toggles and inadvertently dropped a bomb when they intended to use napalm. They normally delivered napalm at tree level or as low as 50 feet above ground level. The delivery of a 500-pound bomb at the same altitude, on the other hand, could destroy the aircraft. After multiple incidents, the crew loaded the 500-pound bombs in the internal bay doors.¹²⁸ During combat, pilots should not have to determine where to hang bombs off their strike aircraft. However, resurrecting World War II era aircraft required extensive pilot adaptation and innovation.

The early American FACs developed other effective techniques through battlefield trial and error. FACs learned to commence the attacks with gun runs to first

¹²⁶ Paige and Li, 10.

¹²⁷ Richard Secord and Jay Worts, *Honored and Betrayed: Irangate, Covert Affairs, and the Secret War in Laos* (New York: John Wiley and Sons, 1992), 53.

¹²⁸ Kelly, 135.

pin down the enemy. On subsequent passes FACs dropped napalm, bombs, rockets, and then back with guns for follow-on targets. The VC also adapted; they exploited airpower's dependency on daytime operations. The enemy launched many attacks on remote bases at night or during poor weather conditions. In response, the air commandos reconfigured the C-47's as flare ships to illuminate targets for strike aircraft. FACs had to perfect the timing of flare illumination missions in conjunction with spotting enemy targets, while firing marking rounds and then controlling the CAS strikes. The FAC was in the center of an intricate operation. The evolution of tactics followed the pattern of action and reaction. Airmen innovated and adapted their antiquated airframes to meet new and emerging threats from advanced anti-aircraft artillery (AAA). The FACs flew at the leading edge of the emerging chaos and routinely demonstrated daring innovation.

Throughout the war, many U.S. troops were stationed in remote outposts that were very susceptible to enemy night attacks.¹²⁹ VNAF pilots refused to fly at night, leaving American pilots to defend them.¹³⁰ Many bases did not have TACPs or even direct radio communications with the pilots. Ambushed personnel would radio through their headquarters when the enemy attacked. FACs sitting alert, received the coordinates and scrambled to their aid.¹³¹ Once on station, the FACs then had to make sense of the chaos below them. When two-way communication was unavailable, FACs developed the tactic for the surrounded ground personnel to set "fire arrows" to illuminate the direction

¹²⁹ Lt Col Alan L. Gropman, USAF, *Airpower and the Airlift Evacuation of Kham Duc*, USAF Southeast Asia Monograph Series, vol. 5, monograph 7 (Maxwell Air Force Base, AL, Airpower Research Institute, Air War College, 1979), 34.

¹³⁰ *Ibid.*, 12.

¹³¹ Kelly, 137.

of enemy combatants.¹³² FACs would line the attacks parallel with friendly lines to avoid fratricide. However, at times pilots would have to take more risky attack profiles to drop ordinance as they crossed over the compound walls. Desperate situations necessitated CAS as close as possible to the enemy forces. When defending an outpost that was nearly overrun, one FAC boasted of dropping napalm so close that it splashed on the outside of the compound wall.¹³³ These desperate profiles risked ground personnel as well as the pilots, but were measures of last resort.

As the conflict continued, the enemy kept pace with American TTPs and employed more and more advanced AAA. Increased amounts of Soviet supplied guns enhanced the NVA and VC counter air capabilities. American and South Vietnamese pilots faced 12-millimeter and 14.5-millimeter Soviet AAAs, and later 22-millimeter, ZSU-23s capable of launching high explosive shells up to 20,000 feet.¹³⁴ The increased lethality of AAA eventually became so dangerous that slow FACs could no longer reach certain areas in North Vietnam. Even then, many FACs continued to press into non-permissive areas as the ground situations required.

Tragically, early air commandos faced other dangers. From 1963, there was a rash of crashes involving both the B-26s and AT-28s from aircraft structural issues. The old World War II planes were simply wearing out from their extensive flight hours, rough

¹³² Lawrence J. Hickey, "Night Close Air Support in the Republic of Vietnam, 1961-1966" (Headquarters Pacific Air Force, Directorate, Tactical Evaluation, Contemporary Historical Examination of Current Operations Division, Hickham Air Force Base, Honolulu, HI, March 15, 1967), 329.

¹³³ Kelly, 137.

¹³⁴ Ibid., 136.

landings and takeoffs from austere fields, and the overstressing of the aircraft. The aircraft were breaking under the results of age and the strains of operating fully loaded off rough, bumpy airfields. In order to escape enemy ground fire, pilots routinely flew the aircraft at the maximum approved limits. The short runways, demanded hard landings that pilots referred to as “carrier landings.”¹³⁵ The daily dive-bombing was the most damaging tactic, as the aircraft were routinely over-g’d. To compound the problem, the Farm Gate aircraft were not even fitted with the meters to register the strain on them until after months of combat operations.¹³⁶

In combat conditions, pilots must take whatever action is required to save their lives and the aircraft. However, when the aircraft are overstressed they must be taken out of service for depot level maintenance and checks. During the early operations in Vietnam, there were insufficient numbers of aircraft to cover the downtime required for higher-level maintenance. Additionally, few facilities were capable to do the repairs. This resulted in over-stressed aircraft that were taking on significant damage. Pilots continued to fly combat missions in spite of the increasingly dangerous condition of their aircraft.

Despite highly vocal crew grumblings, the USAF made no changes until two very public disasters compelled them to do so. During an air show at Hurlburt Field, Florida, a B-26’s left wing ripped off, killing its two aircrew. Then in May 1964, *U.S. News and World Report* magazine printed a series of letters from Captain Edwin B. Shank, an AT-28 pilot that had operated out of Soc Trang, Vietnam. Captain Shank wrote of numerous

¹³⁵ Kelly, 147. Pilots intentionally slammed the aircraft down on the runway to ensure maximum braking before hitting the opposing tree line.

¹³⁶ Ibid.

aircraft structural failures that caused several B-26 and AT-28 crashes. Yet the USAF failed to respond to them. He complained that the World War II aircraft “have been through so many wars and dog fights that they are coming apart.”¹³⁷ His message received additional credence because he and another AT-28 pilot were killed in Vietnam in separate crashes involving their wings ripping off on March 24, 1964. As a result, Congress called the Secretary of the Air Force to provide testimony regarding the incidents. Despite his insisting that the aircraft had undergone extensive rebuilding, Congress ruled that the B-26s and AT-28s must be decommissioned.¹³⁸ Evidenced by repeated testimony to Congress, the USAF was reluctant to admit to the aircraft failures. A congressional mandate forced the USAF to invest further capital into the low-end fleet.

The tragic accidents prompted rapid adaptation of more suitable aircraft to the air commandos’ needs. The USAF replaced the B-26s and AT-28s with Douglas Skyraider A-1Es which were slightly newer relics from the Navy. They resurrected 150 A-1Es from the Korean War for 18.5 million dollars.¹³⁹ The tragedy had several positive outcomes on the commando and FAC program. Congress forced the aircraft upgrade and highlighted Farm Gate’s importance in SEA. It also brought attention to the need for the specialized aircraft and the FACs’ growing importance in Vietnam. The event also forced a public commitment and reprioritization by the USAF towards the Farm Gate program.

¹³⁷ Kelly, 148.

¹³⁸ Ibid.

¹³⁹ Ibid. The converted aircraft were christened as the A-1H and A-1E and were overhauled at \$123,000 a plane. The A-1 proved to become a very reliable workhorse, boasting 2,700 horsepower, 350 miles per hour for nine hours of loiter time and a range of 2,500 miles.

Several Farm Gate pilots petitioned for expanded ROE to engage the enemy more effectively. FACs oft repeated this sentiment across many airframes and multiple decades. The administration emphatically and repeatedly denied their requests.¹⁴⁰ USAF pilots felt that the politically driven ROE forced them to fight a war with two hands tied behind their back. During the early years, air support to ground units was insufficient, CAS response times were slow, and Americans could only attack with VNAF pilots aboard.¹⁴¹ The enemy became inoculated to American airpower, which allowed them ample time to adapt to the gradual escalation of air power. The NVA and VC developed elaborate deception operations along the Ho Chi Minh trail.¹⁴² North Vietnam was rapidly developing their air defenses and the AAA threat spread steadily southward. By the time, the administration cleared the USAF to strike targets deep into North Vietnam; U.S. pilots faced the world's most advanced integrated air defenses against Soviet AAA.¹⁴³ Reactionary U.S. policies diminished the USAF's combat effectiveness against the highly adaptive NVA and VC. ROE, which limited targeting, and aircraft usage further challenged FACs at the tactical level.

¹⁴⁰ Paige and Li, 10. Secretary of Defense McNamara demanded that "Jungle Jim be used for training and operational missions in South Vietnam with Vietnamese riding in the back seats." The quote belies a fundamental disconnect between policy makers and the efforts and understanding of the military in combat.

¹⁴¹ Ibid., 11.

¹⁴² Rick Newman and Don Sheppard, *Bury Us Upside Down: The Misty Pilots and the Secret Battle for the Ho Chi Minh Trail* (New York: Ballantine Books, 2006), 75.

¹⁴³ Ibid., 239.

Forward Air Controller Overview

Air-to-Ground Overview, Need for Forward Air Controllers in Close Air Support

Successful air-to-ground combat requires effective communication between the aircraft and ground personnel. Triple canopy jungles, which obscured ground activity from airborne observation, complicated these missions. Jet aircraft at high altitudes, at high speeds, and unaccustomed to local terrain features could not accomplish the detailed integration required for CAS. Additionally, the attack aircraft and ground troops had incompatible radios. Therefore, FACs served as intermediaries to bridge the communication and coordination gap. The FAC mission required highly complex integration with ground units, artillery, and fighter aircraft. FACs loitered over the target area, developed targeting solutions and maintained awareness of friendly units during some high intensity situations. One FAC best summarized his duties:

In Vietnam, almost every bomb dropped and every rocket fired from an aircraft had been cleared by a FAC. He ran the air war on the battlefield, coordinating all air strikes, the weapons to be used, and their employment. His was the responsibility to make sure that no friendly troops were hurt by the air strikes and whenever possible he physically marked with a smoke rocket each target to be attacked. In short, you bombed where the FAC told you to, and if he said “no,” then you didn’t bomb.¹⁴⁴

FAC operations in SEA began with the classified Farm Gate program in 1961, and a small detachment of pilots flying scrapped World War II aircraft.¹⁴⁵ By 1968, the 504th Tactical Air Support Group (TASG) ran all USAF FAC operations and had 2,971 personnel, including 668 FACs, operational units at 70 locations, and seven direct air

¹⁴⁴ Harrison, 43.

¹⁴⁵ Paige and Li, 9.

support centers. USAF personnel were interspersed across the Army conducting joint operations. Assigned ALOs and FACs worked with two U.S. Army field force headquarters, 10 divisions, 34 brigades, and 119 battalions. Supporting the ARVN, ALOs and FACs worked with the four corps headquarters, ten divisions, 43 provinces and 63 special forces (SF) camps. The scope of the USAF support to Army CAS was extensive; 325 aircraft from the 504th TASG flew one-third of the total combat hours in SEA throughout 1967 and 1968.¹⁴⁶ The enormous growth of FACs testify to their instrumental roles and enormous impact in the Vietnam War.

In combat, CAS is a vital mission integral to both Army and USAF functions. Yet as CAS exists in the nexus of both domains, both the Army and the USAF have traditionally underfunded and under-advocated CAS. As a result, the services historically neglect CAS during interwar periods and it is underdeveloped for the new conflict. FAC airframes at the start of the Vietnam War epitomized the unprepared nature of CAS. The USAF pulled Farm Gate aircraft from the scrap heap, hastily modified them, and flung them into combat. Their success was a testament to the incredible airmanship of the air commandos that flew them. Aside from the Farm Gate aircraft, the slow FAC airframes were newer yet still extremely lacking. The O-1 Birddog and O-2A Super Skymaster were modified civilian commuters that embodied the tragic results of neglecting a vital joint war fighting function. These aircraft were hasty attempts to fill an immediate combat need. The OV-10 Bronco was designed specifically for CAS and became a vastly more capable FAC platform. The jet-FACs utilized various high performance airframes that were not originally designed for CAS.

¹⁴⁶ Lester, 117.

The following section briefly introduces the strengths and weaknesses of the primary FACs from the O-1 Birddog, O-2A Super Skymaster, OV-10 Bronco, F-100 Commando Sabre, and the ground-based FAC. They are broken into the categories of propeller-driven, slow FACs; jet, fast FACs; and ground based FACs. Following the summaries of each airframe will be further discussions on the FAC characteristics.

Slow Forward Air Controllers

O-1 Birddog

The best available, jet-alternative FAC aircraft was the sorely insufficient O-1 Birddog. The USAF, Army, Marines, VNAF and Royal Lao Air Force flew this aircraft. The O-1 operated from the 1961 until as late as 1968. The O-1 was a modified, commercially available, Cessna commuter. The Birddogs were easy to maintain, very reliable, and could fly from austere strips as short as 1,000-feet long. However, they had very limited weather and night capability, a maximum speed of only 100 miles per hour, a loiter time of three hours and insufficient power to run the radios required for air coordination.¹⁴⁷

Birddogs had no armor plating and the pilots' only comfort was the discomfort of a flak vest as seat cushion. Such vests might stop a low caliber bullet but not the caliber of AAA that would be punching through their aircraft. The Birddog carried only smoke rockets, no offensive weapons and no defensive counter measures.¹⁴⁸ The USAF outfitted

¹⁴⁷ Lester, 111; Bernard C. Nalty, Jacob Neufeld, and George C. Watson, *The Air War Over Vietnam, Aircraft of the SouthEast Asia Conflict* (New York: Arco Publishing, 1981), 38; Paige and Li, 13; Walton, 32; J. S. Butz, "Forward Air Controllers in Vietnam-They Call the Shots," *Air Force and Space Digest* (May 1966): 60; Hooper, 100.

¹⁴⁸ Walton, 38.

the Birdog with two radios, yet it did not have enough power to run them simultaneously. FACs must rapidly communicate between ground personnel, multiple flights of strike aircraft, helicopters, artillery, and higher headquarters. A single radio was a preposterous notion for a FAC and severely limited his ability to control CAS. “The O-1 presented a classic example of the haphazard approach that the DoD adopted in meeting the needs of the forward air control missions.”¹⁴⁹

O-2A Super Skymaster

The USAF purchased the O-2A Skymaster in December 1966 as a stopgap measure while the OV-10 was in development. It was adapted from a civilian, business aircraft known as the Cessna 337 Skymaster. The O-2A was a twin-boom, twin-engine aircraft capable of 199 miles per hour. It had modest improvements in night capability, speed and doubled the range of the O-1.¹⁵⁰ The O-2A had four wing slots for marking rockets or 7.62-millimeter mini-guns.¹⁵¹ The Skymaster did not significantly alter FAC tactics, but it made them more effective through greater speeds, marking devices and night capabilities.¹⁵² However, the Skymaster failed to correct one its predecessor’s greatest faults; it also had no armor.¹⁵³ FAC Mike Jackson thought it served as a good

¹⁴⁹ Paige and Li, 13.

¹⁵⁰ Richard M. Achison, “The Slow Mover FAC Over the Ho Chi Minh Trail:1965-1972” (Working Paper, Contemporary Historical Examination of Current Operations Project, Headquarters Pacific Air Force, Hickham Air Force Base, Honolulu, HI, February 3, 1975), 11.

¹⁵¹ Nalty, Neufeld, and Watson, 40.

¹⁵² Lester, 111.

¹⁵³ Nalty, Neufeld, and Watson, 40.

metaphor for the war, “well-intentioned but missing most of the essential pieces necessary to get the job done.” The “airplane was like everyone else over here. It was yanked from civilian life and outfitted for battle, but no one really bothered to give it the right tools for the job.”¹⁵⁴

OV-10A Bronco

In 1962, the Marine Corps and Central Intelligence Agency conducted a joint study to determine the requirements for a new FAC platform. One USAF study indicated that 50 percent of all TIC incidents ended within 20 minutes. Often the enemy disappeared back into the jungle before the strike aircraft could arrive.¹⁵⁵ It was determined that an armed FAC could address that problem. The OV-10A Bronco later became the first aircraft designed specifically as a counterinsurgency, attack and FAC platform. Once it was finally off the line, the Bronco excelled as a CAS platform. The incredibly agile aircraft could pull up to eight g’s and cruise fully loaded at 190 miles per hour.¹⁵⁶ It was built to withstand considerable battle damage. The Bronco featured self-sealing fuel tanks that could be shot through without losing fuel pressure. It had redundant flight control systems that were mechanical vice hydraulic, so that rounds could punch holes through the tail without compromising controls. The Bronco’s huge

¹⁵⁴ Jackson and Dixon-Engel, 22.

¹⁵⁵ Office of Air Force History, *The Air Force in Southeast Asia: Tactics and Techniques of Close Air Support, 1961-1973* (Washington, DC: Office of Air Force History, 1976), 102.

¹⁵⁶ Harrison, 53.

bulbous canopy allowed almost unrestricted visibility so that the pilot could lean outboard to its limit and see directly beneath the aircraft.¹⁵⁷

The landing gear could withstand hard, unflared landings, in order to limit the ground roll distance. This gave the OV-10 tremendous flexibility and forward staging capabilities on the unimproved surfaces and short landing strips in Vietnam. Behind the ejection seat was a large compartment that could carry three fully loaded parachutists for clandestine insertion.¹⁵⁸

The Bronco's full spectrum communication suite greatly improved upon prior FAC platforms. The OV-10 had enough radios to be the envy of any command center. Bronco FACs could easily select or mute each of his eight radios, which allowed him to keep track of ground parties, higher headquarters, helicopters, and multiple flights of fighter aircraft.¹⁵⁹

All the above features make for a capable aircraft but the Bronco's most endearing quality for pilots and ground parties alike was its armament. The Bronco packed a formidable punch.¹⁶⁰ The OV-10's typical loadout was four rocket pods, consisting of a mix of white phosphorous, high explosive, or flachette warheads. It could also carry three pods and a 20-millimeter gun pod on the centerline station directly under

¹⁵⁷ Harrison, 53.

¹⁵⁸ Ibid., 54.

¹⁵⁹ Walton, 39.

¹⁶⁰ Harrison, 53.

the cockpit if missions dictated.¹⁶¹ Perhaps the greatest testament to the value of the OV-10's loadout were the Misty Bronco tests conducted from April to June 1969. The tests showed that OV-10s answered 78 out of 98 CAS requests by themselves at an exceptionally quick response time of seven minutes.¹⁶²

The most fitting tribute to the Bronco came from Marshall Harrison. His narrative does not extol the plane's svelte lines rather its battle hardened and abused exterior. After seeing his new aircraft for the first time he said "the plane looked as if the manufacturer had gone out of his way to make it ugly. The damned thing looked like it was put together using spare parts."¹⁶³ However, after having spent eight months in the belly of the beast, he had more intimate ways to lovingly insult it:

I spotted one of our Broncos parked among the rows of sleek jets, looking like a poor orphan. I looked at it with new eyes after having been reabsorbed into civilization, albeit for only a week. It sat there like a wounded animal, various hues of leaking internal fluids staining its body like blood. These stains contrasted colorfully with its coating of mud, covering it as high up as the vertical stabilizers, obscuring even part of the canopy. Black powder burns covered the sponsons protruding from its belly, where the four machine guns were housed. Irregularly shaped patches covered battle damage, the repair of which had never seen a sheet-metal shop. Some of the rockets were missing from the pods slung beneath the belly of the aircraft, indicating that the pilot had put in an air strike on the way to pick me up. Our Bronco looked like a tramp trying to crash a society garden party. It looked almost as bad as its pilot.¹⁶⁴

¹⁶¹ Walton, 42. The armaments attached to the Bronco with two hard points under its wings and two sponsons protruding from the underside of the fuselage. The interchangeable pods would allow for 5-inch Zuni missiles or 2.75-inch folding fin aerial rocket pods. The sponsons also contained four 7.62-millimeter M-60 machine guns for suppressive fire. The OV-10 could also carry CBU-55 parachute-retarded fuel air explosive bombs.

¹⁶² Lester, 112.

¹⁶³ Harrison, 52.

¹⁶⁴ Ibid., 174.

The aircraft itself was a testimony to the adaptive characteristics of FACs. Harrison's narrative typifies FAC irreverence for the highflying, svelte, fighter aircraft. Pilots often personify their aircraft and several memoirs imprint the pilots' haggard psyches on their aircraft as well. They attribute their aircraft with allegory or rich metaphors, saying how they believe their aircraft represented larger parts of the war. The Bronco testified to the mastery phase of the American tradition to learn-master-forget. By the end of the war, USAF pilots learned what they needed and successfully advocated for the creation and adaptation of an aircraft suited for the battle at hand. Unfortunately, it was largely too little, too late. Prior to the OV-10, many FACs were killed having made do with what was available.

Fast Forward Air Controllers

Anti-Aircraft Artillery Threat Necessitates Fast Forward Air Controllers

Typical in warfare, combatants go through many cycles of innovation and enemy counters that continually escalate warfare. As one side innovates and finds advantage there is a moment of relative dominance until their enemy counters. Adaptations nullify advantages and combatants struggle for another advantage. As American airpower inflicted devastating battlefield effects, the enemy countered with more prolific and advanced AAA. Soviet weaponry, including radar-guided SA-2 and SA-3 surface-to-air missiles and more lethal AAA, began posing untenable threats to slow FAC aircraft. Complex, air defense networks began inflicting too many friendly aircraft shoot downs forcing the USAF to restrict slow FAC aircraft from North Vietnam and portions of Laos. This relegated slow FACs to operations in South Vietnam, portions of Laos and

Cambodia.¹⁶⁵ However, the need for FACs was all the more desperate in areas staunchly defended by NVA and the USAF had to adapt tactics and equipment to continue providing close air support.

F-100 Commando Sabre

For northern missions on June 28, 1967, the 7th AF Commander authorized a test program called Operation Commando Sabre. Detachment 1 of the 426th Tactical Fighter Squadron, located at Phu Cat Air Base in South Vietnam, earned the daring mission.¹⁶⁶ The F-100 brought the advantages of a high-speed jet, two-seater aircraft that was aerial refuelable and armed with rocket launchers and a 20-millimeter cannon.¹⁶⁷ Misty FACs were given a wide latitude to devise their own TTPs. Their main charter was to perform visual reconnaissance and control airstrikes in areas where slower aircraft could not operate.¹⁶⁸ In order to defeat the anti-aircraft systems they were given the restrictions of flying no slower than 450 miles per hour, maintaining altitude above 4,500 feet and they could not conduct multiple passes over the same target within a short time.¹⁶⁹ Despite the speed and evasion techniques, the Misty pilots faced an aircraft loss rate of eight per 1,000 sorties. For a frame of a reference, the strike aircraft loss rate during the same time was 1.4 per 1,000 sorties. This put the Misty pilots at a risk of approximately six times

¹⁶⁵ Schlight, *Jet Forward Air Controllers in SEASIA*, 2.

¹⁶⁶ Newman and Sheppard, 76.

¹⁶⁷ Walton, 61.

¹⁶⁸ Schlight, *Jet Forward Air Controllers in SEASIA*, 2.

¹⁶⁹ Lester, 173.

greater than that of a strike pilot in the same area.¹⁷⁰ The frequent shoot downs and high loss rate weighed heavily on the FAC's psyche and morale. Their continued audacity in spite of such losses made their boldness all the more impressive.

The Commando Sabre experiment was an excellent example of airmen learning from their predecessors and incorporating their experiences. Multiple, slow FACs were transitioned to the F-100s to bring their expertise and tactics to the new community.¹⁷¹ The airframes were not mutually exclusive and in some areas, fast and slow FACs worked in tandem. The fast FACs could hold at higher altitudes, deconflict airspace and coordination measures, and roll in should the air threat become too dangerous. Slow FACs brought their strengths of CAS and battlefield identification. The jet FACs could not avoid the unfortunate tradeoff between aircraft survivability and visual reconnaissance. The F-100's biggest limitation was the mere seconds they had to identify ground parties. Additionally, by the time that the F-100 was selected as a fast FAC platform it was nearing the end of its life cycle. The F-100 was not uniformly fitted with advanced electromagnetic countermeasures or enemy radar notification systems.¹⁷² As the program proved its viability, FACs continued to face the bureaucratic and cultural battles against the larger USAF. The F-100s were in short supply and Pacific Air Forces was unwilling to pull too many strike aircraft into the FAC role. Additionally, USAF was unwilling to take any more aircraft from European Command where they felt that defense

¹⁷⁰ Schlight, *Jet Forward Air Controllers in SEASIA*, 20.

¹⁷¹ Newman and Sheppard, 23.

¹⁷² Schlight, *Jet Forward Air Controllers in SEASIA*, 2.

against the Soviets in Europe was a zero-sum game. The USAF was reluctant to pull aircraft off the front lines in the Cold War for Vietnam.¹⁷³

During the first full month of operations in July 1967, Misty FACs flew 82 missions and controlled 126 CAS sorties. Their armed reconnaissance located 150 truck parks, bridges, fords, and spots suitable for road interdiction.¹⁷⁴ From a single operation in September 1967 alone, CAS aircraft under the control of Misty FACs were “twice as effective as those flown without them.”¹⁷⁵

Misty FACs filled a gap in target identification. It took forty flights as a FAC for Misty pilots to become truly proficient at sighting camouflaged enemy trucks and anti-aircraft guns. This became especially evident during an exchange program when strike pilots flew orientation flights with Misty aircraft. Due to the fuel limitations and wide areas of responsibilities for strike pilots, it became evident that many of them never actually visually identified the targets that they were called upon to attack.¹⁷⁶ The fast FAC capability was proven and the three-year stint ended on May 14, 1970. The program validated the capability of high-speed aircraft in the FAC role.

¹⁷³ Schlight, *Jet Forward Air Controllers in SEASIA*, 11.

¹⁷⁴ U.S. Air Force, “Commando Sabre, 31 July 67” (Contemporary Historical Examination of Current Operations Project Report, Phu Cat Air Base, Qui Nhon, Vietnam, 1967), 36.

¹⁷⁵ Lester, 174.

¹⁷⁶ Schlight, *Jet Forward Air Controllers in SEASIA*, 8.

Ground Forward Air Controllers

Terminal Air Control Parties

The final category for discussion is the ground-based FAC. Airborne FACs routinely fulfilled duties as ALOs within TACPs for ground patrols. These combat missions placed airborne FACs alongside the Army to control CAS.¹⁷⁷ The size and weight of their radios tied TACPs to jeep-mounted patrols. These unarmored radio jeeps were vulnerable to enemy fire and had limited mobility in rough terrain. Additionally, the line of sight in the jungle is even more limited when laying prone, avoiding intense enemy fire. The challenges of the ground-based FAC limited their utility in Vietnam. As a result, TACPs fulfilled more liaison duties than they conducted FAC control.

USAF CCTs were a notably different breed of ground FAC. Air commando, CCTs served as another type of air-to-ground bridge. CCT's accomplished tremendous feats at great personal risk to employ air power from the air and ground. The CCT career field had very diverse skill sets and they "were trained to jump out of airplanes, fight with the infantry, tend wounds and operate an airport."¹⁷⁸ They were direct descendants of the pathfinders who guided aerial invasions of World War II. Over time, CCTs forged their identity along SOF roles and employments. Air commando CCTs first came to SEA to prepare the Thai Air Force for their training with the U.S. apportioned A-26s. As non-

¹⁷⁷ This thesis originally aimed to synthesize ground FAC accounts and analyze the unique challenges of their missions. However, fighter pilots spent very little time in their memoirs discussing their time out of the cockpit except for their brief accounts of being shot down. Army FACs, primarily O-1 Birdog FACs did address more of their ground combat experiences; however, the scope of this thesis centered on the USAF FAC experience. Further research is recommended on the topic of ground-based FACs.

¹⁷⁸ Kelly, 177.

pilot qualified, enlisted personnel, the USAF did not authorize CCT for FAC duties.

However, as time progressed, CCT assumed FAC duties and many more roles that others could not or would not do.¹⁷⁹

The Central Intelligence Agency recruited CCTs for operations in support of its secret war in Laos. Once selected they underwent something called the “sheep-dipping” process. This procedure removed any associated military identity from the recruit to enhance U.S. governmental deniability should he be compromised. CCTs were integral to launching FAC aircraft from austere airstrips throughout the landlocked nation of Laos. Sergeant Clyde Howard, one of the few CCT working in Laos, recalled how he would fly out early each morning to scout out where they would operate that day. He would fly in an unmarked helicopter from his air base in Nakhon Phanom, Thailand.¹⁸⁰ Howard would find a small stretch of road fifty or sixty miles inside Laos but near the North Vietnamese border, that was suitable for an austere airfield and reloading site. His airfield team consisting of a CCT, fuels personnel, aircraft mechanic, bomb loader, and munitions person, would quickly convert the road into an airfield all before dawn. Sergeant Howard recalled:

We’d check the surface, put up markers, bring in the C-7s or C-123s cargo aircraft with bombs and off-load them. Then they would launch the AT-28s out of Nakhon Phanom. They would go hit the targets; the targets might be ten miles from where I was setting up operations. They would drop their bombs, then come back to me, and I would land them on the road. The other guys would load bombs on them. We had fifty-five-gallon drums of gas, so we’d pump gas into them.

¹⁷⁹ Kelly, 177.

¹⁸⁰ Nalty, Neufeld, and Watson, 42.

They had only five or ten miles to go to deliver another load of bombs. We'd do that all day long. We'd turn them as fast as we could.¹⁸¹

They serviced a constant flow of strike aircraft throughout the day until the mission was complete. They would collapse the site, board the last aircraft and return to base to do it all over again at a different site the next day.

Those same CCTs worked various other air combat missions. The CCT ingeniously utilized new technologies and devised unprecedented TTPs to employ air power. Two major limitations affected air operations throughout SEA and especially in Laos. Airborne FACs were always in short supply. Additionally, poor aviation conditions, weather or low illumination, grounded aircraft and allowed the enemy to operate with impunity. CCTs successfully developed a bombing technique to overcome both the absence of airborne FACs and inclement weather. Sergeant Howard was the first to employ radio beacons to the battlefield for beacon-offset bombing. Howard trained his indigenous Hmong troops to run fifty USAF beacons fixed in permanent positions throughout Laos. The indigenous troops kept the beacons charged and on the air. F-111s would call the CCT via radio for targets each morning and 80 percent of the time, they would have a plethora of targets to attack. The F-111 had advanced electronic targeting systems that allowed the pilot to input the distance and direction of the target in relation to the various beacons. The system automatically dropped the bombs on the target.¹⁸² Sergeant Howard would control strike aircraft while airborne or on the mountain tops:

¹⁸¹ Kelly, 175.

¹⁸² Ibid., 180. From an interview with Clyde Howard, conducted at Navarre, Florida on October 15, 1994.

We'd sit on the mountains under the clouds; you could see the troops scuttling across the valley because with the weather they knew the airplanes couldn't get them. But with this system, they didn't even hear them. The planes were up at fifteen to twenty thousand feet. All of the sudden, the bombs would fall through the clouds and the world would come to an end. The enemy called it silent death.¹⁸³

The NVA could not comprehend how their men and equipment were spontaneously exploding. As a result, the NVA limited their movements as they attempted to decipher how they were identified. CCTs routinely infiltrated deep within NVA controlled territory and severely disrupted enemy movement. The brave controllers incurred the risk behind enemy lines to protect the advanced aircraft. Pilots flew unpredictable headings at high altitudes and never alerted the enemy AAA to their presence. The offset-beacon bombing was incredibly precise, however, only the F-111 and the B-52 were equipped with the state of the art technology.¹⁸⁴ Even with advanced TTPs, audacious and innovative CCTs continuously risked themselves to employ airpower.

These missions also set the precedent for CCTs to fulfill FAC roles as needed. The CCTs' fluid radio communications skills combined with their air traffic control expertise made them ideal FACs. The CCTs' mission requirements drastically expanded over time. They exploited the lack of headquarters oversight to prosecute their missions with fewer restrictions. Contrary to the war in Vietnam, U.S. covert support to Laotians fighting against the NVA faced far fewer political restrictions. When asked if the Ravens (FACs flying in Laos) were under ROE restrictions, Major Mike Cavanaugh who flew in

¹⁸³ Kelly, 181.

¹⁸⁴ Nalty, Neufeld, and Watson, 66.

Laos in 1969, replied, “Absolutely not. They (HQ USAF) had the rules and we had our war. They didn’t know, nobody had the guts to go up there and find out exactly what we were doing, and we did the best we could with what we had.”¹⁸⁵ The mission requirements became so dire that the ground FAC-CCTs eventually pushed the boundaries so far as to take their fight airborne.

The lack of qualified FACs in Laos created the need and opportunity for aggressive and tenacious airmen to take on more direct CAS roles. The enlisted CCTs were not pilots so the Central Intelligence Agency hired civilian pilots to fly them to sites to conduct their FAC duties.¹⁸⁶ The airborne CCT FACs went by the call sign of Butterfly and normally flew in Porter Pilatus aircraft. The Pilatus was a highly maneuverable aircraft able to utilize tiny fields, roughly hewn from mountain and jungle roads.¹⁸⁷ The Butterflies brought an interpreter along with them allowing them to control aircraft and coordinate with ground troops in multiple languages.

Technical Sergeant Jim Stanford and Master Sergeant Charles Jones served together as Butterflies in Laos. They met daily with the charismatic, warrior-leader of the Hmong resistance group, General Vang Pao.¹⁸⁸ They shared intelligence regarding NVA movement and where the Hmong needed CAS. The CCT reconnoitered the targets in their Pilatus and called for strike aircraft through the airborne command and control

¹⁸⁵ Kelly, 184.

¹⁸⁶ Christopher Robbins, *The Ravens* (New York: Crown Publishers, 1987), 18.

¹⁸⁷ Kelly, 177.

¹⁸⁸ Jane Hamilton-Merritt, *Tragic Mountains: The Hmong, the Americans and the Secret Wars for Laos, 1942-1992* (Bloomington: Indiana University Press, 1993), 92.

aircraft. In addition to American aircraft, the Butterflies also had a squadron of Thai pilots flying AT-28s from Vientiane every morning and afternoon.¹⁸⁹ For the Butterflies, Laos was a very target rich environment and they “had plenty of targets: truck parks, bridges, supply depots, and hordes of troops. It was a daily operation.”¹⁹⁰

The sheep-dipped, CCT was technically a civilian and he was not authorized to employ munitions or even smoke rockets. However, they very ingeniously devised several methods for marking and even striking targets from their Pilatus aircraft. When they ran out of fighter aircraft to control, the Butterflies used one hundred pound bombs or white phosphorus canisters. They personally modified the Porters to drop all manner of improvised explosives. Stanford recalls, they would drop hand grenades from the cargo bay doors. They designed cardboard tubes that latched the grenade pins to the aircraft. When the doors opened, the grenades would tumble from the aircraft and saturate the area, “just like cluster bombs.”¹⁹¹

The CCT FACs faced many challenges unique to their small numbers. The CCT was isolated and extremely exposed. The CCT designed anti-personnel explosives for very dire situations. Stanford explains, “When you were getting overrun, you would do a lot of things. We would fill a bottle with nails, tape a grenade to it, pull the pin, and drop

¹⁸⁹ Joe F. Leeker, “Air America in Laos III – in combat,” The University of Texas at Dallas, May 29, 2006, last updated August 24, 2015, accessed June 18, 2016, <http://www.utdallas.edu/library/specialcollections/hac/cataam/Leeker/history/Laos3.pdf>, 19.

¹⁹⁰ Kelly, 177.

¹⁹¹ Ibid., 178.

it. Hopefully, it would go off before it hit the ground.”¹⁹² On several occasions, the swarming enemy would get so close to their positions that they had to fight the enemy from the ground as well as the air:

You could see the enemy on the ground—huge, huge numbers, hundreds and hundreds of troops, It was one of the few times we could actually see the buildup, Charlie and I, we would describe the targets to the airplanes while we were still sitting on the ground pumping gas out of a fifty-five-gallon drum into the Porter. We’d get enough gas in to get airborne, put the first wave of fighters in, and then we’d flame out, have to land and pump more gas into the airplane and get back airborne. We never had enough time to get enough gas to stay on target the whole time. We’d land on this little dirt strip while it was under attack, pump gas with a hand pump, and take off again.¹⁹³

The harrowing Butterfly missions provided CCTs ample opportunity to be innovative and audacious. The paradoxes of the Butterfly combat experience in SEA are numerous. First, many of the CCT ground FACs flew in airplanes. They irreverently controlled strike aircraft they were not authorized to control.¹⁹⁴ CCTs were innovative; they dropped bombs they were not allowed to drop from cardboard boxes and bottles that they made. They fought 60 miles inside a country where Americans were not authorized to fight. Lastly, they were military that became civilians, working for the Central Intelligence Agency to defeat the North Vietnamese in a secret war in a neutral nation. Despite their success and the tactical requirements, once the 7th Air Force Commander became aware that enlisted men were controlling jet aircraft he immediately put an end to

¹⁹² Kelly, 178.

¹⁹³ Ibid., 179.

¹⁹⁴ Melvin F. Porter, “Project CHECHO Southeast Asia Report. Second Defense of LIMA Site 36” (Contemporary Historical Examination of Current Operations Project Southeast Asia Report, Contemporary Historical Examination of Current Operations Division, Headquarters Pacific Air Forces, Hickham Air Force Base, Honolulu, HI, April 28, 1967), 16.

the practice.¹⁹⁵ He could not accept that non-pilot qualified airmen were able to safely employ CAS from his aircraft.¹⁹⁶

From O-1s, O-2As, F-100s, to CCTs every FAC experience was unique, yet the characteristics that they revealed were so similar. FACs operated anywhere from major international airfields all the way down to enemy overrun dirt roads. They fought from make-shift and modified aircraft using innovative tactics to overcome aircraft limitations and enemy challenges. They operated with audacity and bold tactics against an elusive enemy.

Conclusion

FAC operations in SEA experienced massive growth over a few short years. U.S. aircraft began their Vietnam War with the small Farm Gate program in 1961. Its modest beginnings consisted of a small detachment of pilots, flying scrapped World War II aircraft.¹⁹⁷ By 1968, the 504th TASG ran all USAF FAC operations. The 504th TASG had 2,971 personnel, including 668 FACs, operational units at 70 locations, and seven direct air support centers.¹⁹⁸ USAF personnel were interspersed across the Army and they

¹⁹⁵ Robbins, 34.

¹⁹⁶ Robbins, 36. In Laos, rated FACs eventually replaced the CCT and were given the call sign, Raven. Several excellent resources share the Raven account of the fascinating and deadly war in Laos. FACs in Laos; Kelly, 184. The Ravens would alternate sorties between the AT-28 and the O-1. They would always fly with a Hmong as spotter and interpreter to speak with the ground troops. At the height of their operations there were 191 Ravens serving as FACs in Laos. Out of their number, 31 were killed in action; Walton, 53. One in eight Ravens never returned home.

¹⁹⁷ Paige and Li, 9.

¹⁹⁸ Lester, 117.

participated in unprecedented numbers of joint operations. Assigned ALOs and FACs worked with two U.S. Army field force headquarters, 10 divisions, 34 brigades, and 119 battalions.¹⁹⁹ Supporting the ARVN, ALOs and FACs worked with the four corps headquarters, ten divisions, 43 provinces and 63 SF camps. The scope of the USAF support to Army CAS was massive; 325 aircraft from the 504th TASG flew one-third of the total combat hours in SEA throughout 1967 and 1968.²⁰⁰

USAF advisors began the war teaching VNAF pilots flight fundamentals in antiquated aircraft. The FACs worked through limitations in nearly every facet of combat from inappropriate aircraft to restrictive political mandates. The FACs adapted, they learned and mastered their CAS trade in combat. However, the enemy adapted as well. The VC and NVA honed their techniques to thwart U.S. airpower advantages. The enemy rapidly increased the lethality of their air defenses and bolstered their logistical networks. The devastating AAA threat eventually forced the USAF to change its tactics. This increased the demand for jet FACs who audaciously covered more high-threat territories. Innovative airmen devised successful TTPs and transferred their experiences between airframes, yet all the protracted combat exacted heavy tolls upon the aircraft and men. Throughout the war, FACs faced difficult odds in ill-suited aircraft. The following chapter examines the FAC combat experience in SEA and the characteristics that they typified. The operational and tactical environment produced the enduring FAC attributes of audacity, innovation, and irreverence.

¹⁹⁹ George S. Eckardt, *Command and Control 1950-1969* (Washington, DC: Department of the Army, 1974), 64.

²⁰⁰ Lester, 117.

CHAPTER 4

FORWARD AIR CONTROLLERS' COMBAT EXPERIENCE

Three Defining Forward Air Controller Characteristics

This chapter addresses the FAC combat experience and synthesizes their accounts. Throughout each historical account, regardless of time, location, or airframe, FACs shared similar stories and sentiments. The FACs' personalities and characteristics shine through. This chapter synthesizes their historical accounts and emphasizes FAC characteristics of audacity, innovation, and irreverence. This is a subjective analysis and is not an exhaustive or exclusive list of FAC traits. This chapter represents the author's art in analysis. This is both a professional and personal effort to understand war and the characteristics of the warriors who fought. Those who have locked upon their enemy in mortal combat, who have taken life and lost life, are influenced intimately by their experiences. They adapt to the austerity of war and to the violence of combat. Their personal character is revealed and refined in the crucible of combat.

Audacity

The elite FACs performed extraordinary acts in combat but many of them viewed their own acts of heroism simply as doing their duty. Embarrassed by the public spectacle of their awards, some instead, turned their thoughts inward as they questioned what more they should have done to save those that they left behind. The following events are a brief sampling of the FACs' audacious character. They represent the repeated and habitual acts of bravery. These characteristics arise from uncommon men when pressed under the extraordinary circumstance of FAC combat in SEA.

One FAC, recalled standing at an awards ceremony decades after his combat in Vietnam. “My thoughts never returned to Vietnam without uncorking a jumble of emotions and memories . . . it always left me feeling perplexed, disheartened, and thoroughly disgusted. We weren't the best, or the worst, or any other fancy adjectives. Each of us had endured, survived and moved forward with a unique blend of strengths and weaknesses.”²⁰¹ He could not see anything truly special about himself, except that he endured and did his best.

However, at times, these men performed audacious acts in defiance of regulation and the fundamental principles of airmanship. FACs frequently disregarded self-preservation for the sake of the men on the ground. Mike Hooper, an O-1 FAC and Silver Star recipient, once took off in weather conditions so dismal that all strike aircraft had turned out of the battle and headed for home. There was a beleaguered battalion left behind in the demilitarized zone who had lost all other air support due to heavy rain. The soldiers were in a serious firefight with more NVA reinforcements closing on them. Hooper received a call from an Army operations officer, pleading for any assistance for his men. Hooper decided to attempt a takeoff even though inclement weather had closed his airfield.

En route to the battle, the closing weather obscured Hooper's vision in every direction and forced his aircraft ever lower. Armed with only four white phosphorus marking rockets and his M-16 and grenades, Hooper set off to harass the NVA 12.7-millimeter heavy machine gun that was pinning down friendlies. Holding his rifle out of the window and into the jet stream while trying to maintain 100 feet above ground was no

²⁰¹ Jackson and Dixon-Engel, 17.

easy task. Hooper recalled the whole scene looked like a shooting gallery with muzzle flashes in every direction that he looked.²⁰² Despite hearing there would be no air support, one Army sergeant was shocked to see, not one, but two FAC aircraft arrive overhead for them. The O-1 “made three or four low passes—maybe 25 to 50 feet—over and in front of us, someone dropping grenades and firing an M16 out the window while also taking fire.”²⁰³ After multiple rounds struck Hooper’s aircraft, one bullet hit the Kevlar vest he sat on. The burning round pulverized the ceramic plate into a fine dust that filled his cockpit.

Despite weather below minimums and no strike aircraft support, several FAC sorties launched after Hooper’s bold flight and continued to provide CAS. Before taking off, another pilot recalled seeing Hooper land. “I remember the holes in his plane—not just the holes, which were memorable—but him laughing and joking about it with the crew chiefs.”²⁰⁴ The peril was unavoidable and many FACs embraced it with a haphazard resignation. Several FACs told of similar ambivalence to bullet holes and narrow escapes.

One of Marshall Harrison’s numerous near misses took place as he was providing armed route reconnaissance. One day he was over watching a convoy that struck a mine-initiated ambush. He sprung to action and called in fighter support while rolling in on the enemy ambushing from the side of the road. Flying at 500 feet, Harrison raked the target with bursts of automatic fire from his four 7.62-millimeter cannons. After multiple passes, his aircraft took several rounds. On this sortie, he happened to have a back-seater

²⁰² Hooper, 100.

²⁰³ Ibid.

²⁰⁴ Ibid., 107.

pilot that helped to man radios and track the enemy positions below. According to Harris, as enemy ground fire intensified the two pilots played the typical “Air Force game; of I’m cooler than you.”²⁰⁵ They verbally identified the enemy positions to each other. They spoke about enemies slinging a hail of bullets at them as calmly as “asking someone to pass the salt.”²⁰⁶

After a harrowing, low attack, Harris pulled over 6-g’s to right the aircraft at a safer 3,000-foot altitude and assess the damage. He noticed several holes in the wing along the gas tanks yet did not see any leaking fuels. He verified that the OV-10 tanks were in-fact self-sealing as advertised. His co-pilot burst out, losing the coolness challenge, exclaiming, “‘they shot my heel off!’ His voice full of wonder like someone who had just witnessed a dog flying. Harris asked, ‘how bad is it, can you reach your first aid pouch?’ ‘It didn’t touch my foot’—the wonderment still in his voice—‘they just shot the heel right off my boot.’ Harrison was spared further discussion of the status of his boots by the arrival of the flight of fighters.”²⁰⁷ He quickly worked the fighters on target, and called in multiple passes of cluster bomb units that blanketed the targets with small bomblets.

The FAC marked targets with rockets between each pass. He dove low as the bomblets were still exploding beneath him. Glancing up, he saw a jagged hole the size of a drink coaster directly over his head. His co-pilot explained that the shell came up through his side panel; just three inches shy of blowing his leg off. Once the FAC was

²⁰⁵ Harrison, 144.

²⁰⁶ Ibid.

²⁰⁷ Ibid., 145.

certain that all friendlies had departed the area, he marked four corners of the target area and cleared the fighters to expend all ordnance at their will. When strike pilots were unrestricted, they faced relatively little danger from ground fire. They could radically vary their approach headings and break-offs and be in and out before the gunners could track them.²⁰⁸ However, FACs had to continue their attacks regardless of enemy fire. If their marking rounds were not accurate, then strike aircraft could not target effectively and the ground personnel would continue to receive the withering fire that the FAC spared himself.

Mike Jackson, an O-2A FAC, found that most of the time he was not even aware of being shot at. The roar of the engine noise drowned out the gunfire and impacts. Only occasionally, would he glimpse the tracer rounds flying past the windshield or see the small flashes of light from the jungle floor:²⁰⁹

Getting shot at had become something akin to breathing: It just happened, and I didn't waste much effort thinking about it." [On one occasion, the ground fire was so intense] I was half convinced the trees themselves had pulled out guns and started firing at me. My peripheral vision caught a couple of tracers splitting the air on either side of me, but I felt no impact and heard no whiz of bullets. My heart pounded as though it was trying to bash its way out of my chest and head for higher ground.²¹⁰

With no defensive measures and no speed to outrun them there was little that he could do even if he saw the enemy launch a heat-seeking SA-7 SAM. Usually his only option was to continue with the attack and mark the enemy as quickly as possible.

²⁰⁸ Harrison, 147.

²⁰⁹ Jackson and Dixon-Engel, 25.

²¹⁰ Ibid.

When habitually facing such danger, successful FACs simply came to terms with what they could not control. Paralyzing fear can overtake those that dwell on the devastating consequences of things beyond their control. Instead, they focused on that which they could affect. They entrusted their survival to whatever higher power they believed in or to random chance. As their fates unfolded, the warrior focused on accomplishing the mission at hand until his time ran out.

Not all FACs viewed their propensity to survive the inevitable dangers of combat the same. Marshall Harrison recommended that FACs never fly in a straight line. He would occasionally roll the aircraft inverted and would head straight towards the ground in a screaming dive only to immediately climb back up to altitude after he had bottomed out. He said, “just in case old Charles is watching you from the ground. He might think you’ve seen something and panic and loose off a few round. If you see where they came from then you can nail him.”²¹¹

In addition to constant turns, pilots also made frequent changes in altitude and would skid the aircraft erratically to confound anti-aircraft gunners that would attempt to track and anticipate the pilot’s position. The FAC schoolhouse taught that low-level combat flight required frequent altitude changes and perpetual juking to evade the enemy. One FAC who flew the O-2A Cessna 337 Super Skymaster disagreed with this tactic and thought all the dancing just distracted him from his job. He thought he was just as likely to dance into enemy fire as away from it. Aircraft type and capabilities likely effected the

²¹¹ Harrison, 81.

usefulness of this tactic. Due to the tremendously slow speeds, FACs juking their O-1 or O-2s were unlikely to move the aircraft more than a few feet from side to side.²¹²

Despite the platform or tactics, FACs faced greater risk the longer they loitered over the target. The repeated low marking passes for visual reconnaissance placed the FACs at greater risk than the jet, strike aircraft that they controlled. The FAC's requirement to accept greater risk than those he controlled led to an isolating perspective and resentment at times. This differing perspective even occurred between F-100 fast FACs, and the F-4s they controlled. An F-100 FAC identified some AAA fire from a nearby valley and received a flight of fully loaded F-4s to prosecute the target. Once the fighters linked up, the F-100 FAC proceeded to the target. He started his pass about 5,000 feet, began a pull-up, and then rolled the plane over on its back, spinning upside down into a 30-degree dive angle. As the FAC flew below 2,500 feet—well inside the AAA's range—he could see muzzle flashes below. He could see the tracers screaming past the cockpit as he flew straight into the 37-millimeter AAA battery. The FAC finally fired his marking rocket and pulled up, elated to have made it through. He called to the strike fighters, instructing them to make their attacks off his smoke. His stomach dropped when they replied, “negative visual, what smoke?”²¹³ His last marking rocket was a dud.

The FAC dutifully rolled straight back through the hornets' nest, only lower and slower the second time. The second time the muzzle flashes were brighter, and tracers closer. The pilots could even feel the bangs as the supersonic shockwaves from the AAA beat against the canopy. This time the White Phosphorus rockets hit their mark and the

²¹² Jackson and Dixon-Engel, 21.

²¹³ Newman and Sheppard, 54.

FAC called in the fighters for their bombing pass. However, instead of following the FACs' paths, the F-4s rolled in from 10,000 feet and dropped their bombs from a relatively high 6,000 feet; far too high for effect. As expected, the bombs landed far off target and yielded nothing against the AAA.

The exasperated FAC gracefully sent the fighters off station, versus releasing a diatribe over the net. He recalled, "we had risked our lives—twice in fact!—so that a bunch of yo-yos could log another combat sortie without having to do much to earn it." The FAC questioned; "what was the right tradeoff of risk for reward? Did it make sense for the FACs to risk their lives for AAA that would quickly and easily be replaced? Or did the F-4's have the right idea: stay high, keep it safe, and come back another day?"²¹⁴

As FACs wrestled over the moral dilemma regarding how much they should risk, they had a heavy factor weighing into their equation. The FAC answered directly to the men on the ground, in danger and calling to them for help. Strike pilots had considerable separation (both metaphorical and physical) from the men on the ground. FACs heard the pleading and saw the muzzle flashes. They answered to the Army chain of command for the battalions they served. Additionally, many FACs lived at the same outposts and knew the men on the other end of the desperate CAS requests. Daily, FACs carried the sacred responsibility to direct the strikes that saved and killed. FACs dealt with the knowledge that the personal risks that they accepted or denied could have life and death consequences for those they served.

Certainly as with any organization, there were those who failed to meet the standards of conduct. "You could tell when FACs were pushing it by examining their

²¹⁴ Newman and Sheppard, 55.

windshields when they landed. There are no bugs flying at 5,000 feet. The windshield of a high-flying FAC came back clean.”²¹⁵ After one sortie, a crew chief called the commander to the flight line to inspect Mike Jackson’s aircraft and pointed proudly to the left wing. Under the wing strut there was a small tree branch, complete with leaves that he snagged.²¹⁶ The aggressive FACs earned the most dangerous posts with the highest enemy activity. Commanders reassigned FACs that could not thrive in heated combat to more placid regions or staff duties. Although reassigning them to plush postings seemed a perverse incentive, the risks of fratricide far outweighed the injustice.

Not only did FACs assume great personal risks in audacious flight, they also risked the lives of the troops they supported. Ambushed and overrun troops relied on FACs’ expertise and precision. In desperate situations, commanders called danger close and accepted the risk that the bombs would hit so close that they might kill their own men. Those desperate troops faced the reality that without CAS they might soon perish anyway. Harrison served with Army SF in Laos known as Military Assistance Command, Vietnam – Studies and Observations Group (MACVSOG) teams. Typically, his units would not request CAS against enemies that were further than 100 meters from them. The MACVSOG teams figured they could outrun the enemy if they were that far off. The MACVSOG routinely asked FACs to employ well within a 20-meter radius, sometimes in 360 degrees defense of nearly overrun teams.²¹⁷ The demands on FACs to react quickly and as closely as possible were tremendously high.

²¹⁵ Jackson and Dixon-Engel, 40.

²¹⁶ Ibid.

²¹⁷ Harrison, 206.

As one commanding officer of an O-1 Birdog company wrote, “Those who flew these missions, were unique: self-reliant, aggressive, determined, and tenacious. And because they were virtually on their own from takeoff or landing, it also required a personality bordering on controlled recklessness.”²¹⁸ Marshall Harrison’s prologue best summarizes the audacity of his brethren:

FACs were a small group of dedicated ex-jet pilots flying lightly armed and slow-moving aircraft in South Vietnam. Their job was to find, fix, and direct airstrikes against an elusive enemy, concealed for the most part by the heavy rainforest and jungles. It was a near impossible proposition to precisely locate the targets hidden beneath the heavy tree growth, then direct the bombs dropped by their fighter pilot brethren, often against an enemy engaged in close contact with friendly troops. For the FAC the question always foremost in his mind was how close dare he bring in the bombs without injury to their friendlies and still thwart an enemy attack. These bringers of death as their enemy called them, roamed the battlefields and were seldom far from any action on the ground. They lived with the troops in the field and flew from unimproved airstrips, and virtually controlled the aerial battlefields of South Vietnam. Their losses were staggering and they usually died alone. They were brave men, and I am proud to be one of them.²¹⁹

The most readily apparent FAC attribute was their audacity. The harrowing FAC mission seemed inherently reckless. They loitered over the active enemy locations in slow moving, unarmored aircraft. Many FACs’ only weapons were for marking targets, which they had to employ at perilously low altitudes. In order to fight at all, FACs had to come to terms with their vulnerability and resolve to fly in spite of the constant danger beyond their control. Yet they repeatedly sacrificed themselves for the sake of the brother in need below them.

²¹⁸ Hooper, xii.

²¹⁹ Harrison, v.

Innovation

Previous chapters highlighted several innovative FAC actions during the advisory years and the Farm Gate program. One FAC mission is especially worthy. The allied invasion of Cambodia in 1968 revealed an extensive NVA road network far inside of the suspected 20 kilometers from the Vietnam border.²²⁰ The NVA adapted to the rigid B-52 targeting ROEs and shifted their resupply routes outside of the targetable areas. The Army SF or MACVSOG received the mission to map the new NVA road networks outside the B-52 normal bombing runs. The SF team's previous reconnaissance missions had yet to penetrate that far into the allegedly neutral country of Cambodia. NVA habitually intercepted the SF teams shortly after their infiltration. The NVA developed an extensive notification network which monitored helicopter traffic and known landing zones.²²¹ The SF devised a plan to eliminate the helicopter's compromising signature. The reconnaissance team planned to parachute at night from one of the Central Intelligence Agency's C-130s. They would infiltrate, map the resupply route, and then walk back towards the border to exfil via helicopters.

However, higher headquarters cancelled the C-130 at the last minute, leaving the planners to consider the OV-10 instead. In theory, the Bronco's empty cargo bay was designed for exactly that task. They rehearsed stuffing three combat-loaded personnel inside the OV-10 with a cargo strap in lieu of the cargo bay door. The indigenous team members had never parachuted, yet according to the FAC, they seemed somehow

²²⁰ Harrison, 271.

²²¹ Ibid., 272.

unworried.²²² A jumpmaster flew in the back seat of the OV-10 to account for winds and drop zone release. Once the Bronco neared the drop zone deep inside Cambodia, the FAC flashed the cargo bay light once to warn them to prepare. The next light meant to scoot themselves outside of the aircraft. The Bronco then performed a steep climb to allow gravity to pull them out. Their static line parachutes automatically opened as they pulled far enough from the aircraft.²²³

Once jumpers were away, the FACs remained on station to relay the team's radio calls. Surprisingly, all jumpers landed safely and executed a productive seven-day mission. The team reported, "Convoys of NVA barreling down the roads, day and night, and long columns of troops passing with little fear of observation or attack."²²⁴ The SF reconnaissance team mapped much of the network of roads and passed extensive targeting data for the B-52 strikes.²²⁵

The team was compromised on the seventh day of the mission. The element ran and evaded for several hours before they could pause long enough and relay for help. Fortunately, two FACs were conducting handover in the area when they received the distress call. The FACs came overhead, located the team, and redirected them from running into dense jungle. The reconnaissance team made it to a small clearing and found an oddly pristine dirt road. The enemy was rapidly closing and it was clear the SF team would not survive the 30-minute delay for helicopter exfil.

²²² Harrison, 273.

²²³ Ibid., 277.

²²⁴ Ibid., 278.

²²⁵ Ibid., 279.

The two FACs dropped down to 100 feet for a closer look when they both realized the team's only chance for survival would be from the unorthodox. The FAC radioed to the team, that the road looked smooth and straight enough to get the airplanes down there and off again, if they were willing to try it. The team replied with a "hell-yes"²²⁶ and the lead pilot snapped around for the landing while his wingman strafed the tree line. The FAC slammed the robust landing gear to the ground in a "carrier landing"²²⁷ with no flare to ensure maximum braking. Three team members emerged from the tree line and clambered aboard. Harrison recalled, "with the extra weight the aircraft accelerated like a sick chicken."²²⁸

When the NVA charged the front of the plane, the FAC let the machine gun rip as the aircraft lifted off. The guns chewed up the ground behind them and the figures scampered back into the jungle. As the OV-10 cleared 100 feet, the enemy in tree line opened fire and raked the cargo bay with several hits. The second aircraft then dropped down and repeated the shuffle. Dread consumed Harrison regarding the bullets he had taken across his cargo bay on takeoff. The entire flight back he was unsure if he was hauling corpses home. When they touched down at their home airfield, a great audience was in place to receive them. As the pilot crawled out of the cockpit, he turned to see his three passengers on their feet and gesturing wildly how close the AK rounds had come to them. The team walked over to shake their hands and Khmers made little bowing motions at the pilots. The American team members pledged life debts but decided a round of

²²⁶ Harrison, 279.

²²⁷ Ibid., 280.

²²⁸ Ibid.

beers would settle the debt.²²⁹ The innovative mission utilized the Bronco in unprecedented ways and enabled SOF airpower. The hasty exfiltration required quick thinking, audacious tactics, and a blatant disregard for regulation. Harrison exploited his environment and all the tools available to save his team.

Several FAC accounts cite audacious tactics attempted in flight for the survival of the men below. If necessity is the mother of invention, then desperation is its father. Early FACs had to improvise their TTPs and conduct trial and error by fire. Innovation was never complete, as combatants would leap frog one another with ever-advancing threats and adaptations. The characteristics of audacity and irreverence made a complementary trio with FAC innovation. In order to innovate, FACs had to be bold enough to attempt new methods and irreverent enough to risk the consequences of breaking conventions and regulations.

Irreverence

Irreverence is not normally considered a positive attribute for military professionals. It is drilled into the military during basic training that airmen must adhere to good order and discipline. Yet, undeniably, daring and reckless men gravitate towards certain subcultures in the military. These irreverent traits infuriate their commanders in garrison yet when aimed in the right direction, can be tremendous assets on the battlefield. The daring and audacious men of the FAC community, attracts and breeds a healthy dose of irreverence. The Vietnam War ROE, perhaps more than any other, drew great scorn and FAC irreverence. Mike Jackson referred to the myriad of ROE as “a

²²⁹ Harrison, 283.

kaleidoscope of insanely complex rules” and “the idiot’s guide to combat.” He felt that “it was apparent to everyone in-country that two different wars were being waged: the war we lived with twenty-four hours a day, and the war that somebody behind a desk in the capital dreamed up.”²³⁰ The frequency of the ROE changes were as frustrating as their content. “The ROEs were modified monthly, sometimes weekly. They reeked of political engineering, with little or no semblance of military strategy.” Ultimately, Jackson felt that “the ROEs tied our hands at every turn while simultaneously placing us in charge of practically everything that happened in the air or on the ground.”²³¹

FAC also witnessed the inconsistency of the politically charged policies. There was significant frustration for the FACs regarding cross-border operations. Their command was serious about preventing “any international incidents with a supposedly-neutral country.”²³² ROE prohibited Harrison’s FACs from any operations near the border region. He commented, “this situation was one of the more paradoxical things in the war, since we knew with certainty that the NVA had completely taken over the border area to a depth of at least twenty kilometers. We could see their trucks and troops blatantly marching southward, as effectively removed from our attacks as if they were moving through Piccadilly Circus.”²³³ FACs occasionally pursued the NVA well across the border when their formations became too brazen. FAC commanders routinely overlooked these violations as the combatants failed to see the value of the political farce.

²³⁰ Jackson and Dixon-Engel, 15.

²³¹ Ibid.

²³² Harrison, 159.

²³³ Ibid.

The North Vietnamese and United States routinely violated Laotian neutrality. Harrison concluded, “it was difficult to feel repentant when the countryside across the border was often covered with B-52 bomb craters. It was obvious that our government wasn't against all attacks over there, just the OV-10s.”²³⁴

FACs most frequently demonstrated their irreverence by their consistent violation of flight safety regulations. Regulation restricted FAC aircraft from flying below 1,500 feet in order to be outside the effective range of AK-47 fire. However, at that altitude, it was nearly impossible to see ground activity. Squadron commanders and flight safety officers were known to shadow FACs on combat sorties to attempt to catch violators. They would even dole out punitive paperwork against pilots caught breaking below the altitude floor.²³⁵ Many FACs endured the discipline, knowing the administrative risks were minor in comparison to failing the men on the ground.

Many of the USAF's peacetime regulations and requirements were not adequately adapted for the realities of combat.²³⁶ The inflexible stateside maintenance requirements were impossible to follow in combat. Regardless, the administrative standards still bound FACs. This led to many pragmatic and irreverent decisions at the detachment level. Pilots and maintenance chiefs routinely broke the rules in order to continue combat operations. Aircraft taking fire on a daily basis at remote bases simply could not accommodate the maintenance requirements. In theory, the TACP at a forward operating location would do only minimum aircraft maintenance and send battle-damaged aircraft back to squadron

²³⁴ Harrison, 159.

²³⁵ Ibid., 150.

²³⁶ Ibid., 96.

headquarters. However, in practice, the units never could spare the aircraft. The ingenious maintenance crew made do with what they had and repaired everything on site—off the books, as needed. All of the ground crew, to include radio operators learned the mechanic's trade and could do anything short of a full engine replacement. The FACs testified that the results were not pretty but the planes held together in flight.²³⁷

By regulation, the Tactical Airlift Support Squadron would have to send out a maintenance inspector to give his blessing before they could ferry a damaged aircraft to receive higher-level maintenance. The USAF had strict regulations against flying damaged aircraft without inspection. FACs routinely avoided the inspection and patched the plane however they could. One ALO reported, “in the event an aircraft inspector paid us a visit, all aircraft with battle damage were reported as having taken it the day of his arrival.”²³⁸ The inspectors knew better but the farce went up the chain as long as there were commanders willing to underwrite the risk for operations.

However, the most serious problem with paperwork came from overflying the aircraft and the pilots. Each aircraft was limited to 100 flying hours before undergoing inspection back at the squadron. The pilots were to fly no more than 65 hours per month. Yet they had to accomplish at least twice the flying from man and machine to meet the scheduled requirements.²³⁹ Their solution was simple; they stopped reporting flights. In practice, it was more complicated to account for the fuel and munitions expended on the bootleg flights. For the expendables, the USAF FACs borrowed fuel and ammunition

²³⁷ Harrison, 134.

²³⁸ *Ibid.*, 153.

²³⁹ *Ibid.*

from the Army helicopter squadrons who were less stringent with recording expenditures. Crafty units begged, borrowed and co-opted the required resources through good rapport and the powerful liquid currency of beer.²⁴⁰ However, not all FAC irreverence was for the sake of the mission.

One tragic story captures the limitations of the aircraft, the audacity of the pilots to overcome them and an unbalanced irreverence for human life. One Birddog pilot was performing FAC duties and was caught in a storm. He was desperately low on fuel and caught between a massive storm front, the ground, and running out of gas in the jungle. He decided to try to fight through the storm in order to make it back to his remote airstrip.

The Birddog FAC, seeing that there was only a small portion of the squall line between he and his strip, opted to go underneath the storm. Amidst the encroaching squall, he could still make out the outline of the road back to his base. He dove towards the ground in order to navigate via the road. In his attempt to keep the road in sight, he flew so low that his prop decapitated a Vietnamese civilian riding a bicycle. A passing South Vietnamese guard happened to see the event and reported it to the base. The pilot might have endured the tragic accident with a strong admonition; yet, he chose to cover it up. The military police caught him removing the remains from the propeller and arrested him.²⁴¹ This FAC's daring flight met an excess of misplaced irreverence. He suffered a tragic loss of perspective over the value of the lives he was there to protect.

²⁴⁰ Harrison, 153.

²⁴¹ Ibid., 175.

Like most combatants, FACs each had to come to terms with killing. Some dealt with mortal combat by weighing their actions in a moral balance. Jackson took solace believing that he saved more American and South Vietnamese lives than the numbers of NVA or VC that he killed. He remarked, “I didn't enjoy playing God. Being in control was one thing, but wielding the power of life and death was altogether out of my league.”²⁴² Jackson attempted to view his actions as one small cog in a greater machine. He knew that “no matter what I did or failed to do, someone was going to die.” All he could do was attempt to tip the scale to ensure “all the dead guys were on the north side of the river.”²⁴³ This coping mechanism alleviates some burden of responsibility. It is not a Nuremberg defense; rather it is an acknowledgement that there is a level of war and death beyond his control. Instead, he focuses on what he can effect; his expertise and his aircraft. In his thinking, it was not all on him. Some were going to die that day regardless of his flight; he just intervened to the best of his ability to save some, by killing some others.

Harrison dealt with death differently. His tour as an OV-10 FAC was his third in Vietnam. Multiple times, he mentioned feeling a compulsion towards guilt but simply could not muster any for his enemy. He said they had been trying to kill each other too long for that. Harrison provided two interesting examples regarding remorse and killing the enemy. During one battle, Army intelligence accredited him with over 150 kills by air. He recalls his sentiment, “Score one for the Gipper. As I left the briefing room, I was thinking that I should have felt sad, but all I felt was pleasure. A conscience is simply too

²⁴² Jackson and Dixon-Engel, 31.

²⁴³ Ibid.

heavy a burden to pack around in combat. Outside the briefing room, I found that someone had stolen my jeep.”²⁴⁴ His concluding thought referred to a running joke throughout his book that recounted the daily battle on base to acquire new vehicles and defend his unit’s motor pool against Army personnel theft. The pilot checked his existential dilemmas on mortal combat by focusing on the practical details of coping with life. Long-term questions over the morality of combat had to be set aside in order to survive.

Ironically, immediately following Harrison’s killing 150 enemy combatants he remorsefully recalled one bizarre mission to take out a resupply convoy. Marking the memoir’s first mentions of shame and regret, Marshall recalled his strafing runs against a long line of 27 elephants carrying enemy machine guns and ammunition:

I knew we were going to have to shoot those critters down there and I didn't want to. If they had been people, I'd have been on them in a minute, but elephants, for God's sake! . . . We finished the massacre by firing all remaining rockets into the bodies still writhing. As we flew low over the dead bodies, the stench of burning flesh filled the cockpit. We never mentioned the incident again but the elephants had the last laugh. Their huge bodies quickly decayed in the tropical heat, and the miasma that arose from them tainted the air for miles around the scene of the slaughter.²⁴⁵

In combat, the horrific can become commonplace and compartmentalized under the expected and accepted nature of war. Habitually dealing with death and destruction can desensitize combatants to its tragedy. Particularly unique or unexpected experiences break the calloused and numbed responses, and combatants are forced back into experiencing the emotional trauma of killing. The FACs were well accustomed to the

²⁴⁴ Harrison, 151.

²⁴⁵ Ibid., 152.

tragedy of taking human life. Killing combatants armed against them was one thing, but when the suffering of the innocents faced them, that was an entirely different experience.

The FACs were additionally responsible for battle damage assessments of B-52 Arc Light strikes up to 15 kilometers into Cambodia. The lumbering, eight-engine behemoth B-52 was capable of dropping 60,000 pounds of ordnance on a single mission.²⁴⁶ The bombers were seldom off by more than a few meters. These battle damage assessment missions filled their minds with grotesque contortions of bombs against flesh. Battle damage assessments had to be conducted immediately before the damage was either quickly repaired or hidden. The NVA were certainly there but as soon as the raid was over everyone adjacent to the strikes would converge on the area and help survivors and remove the dead.

On one mission, Harrison was on site within twenty minutes of the strike. He flew at 300 feet to tally adequately the enemy bodies. One-third of the way up the bomb train it was clear that this strike found many targets. Crumpled, broken figures were sprawled between the blast area and tree line. Many were partially covered with soil, as the bombs had not only killed them but attempted to bury them as well. He “attempted to squeeze out a tear or two for these people but couldn’t. We’d been trying to kill each other far too long for that.”²⁴⁷ He continued up the crater string, adding bodies. This mission yielded at least 35 destroyed bunkers. He surmised it was “probably a long column moving through the rain forest when the hell came at them from above. It looked as if a large scythe had

²⁴⁶ Newman and Sheppard, 41.

²⁴⁷ Harrison, 235.

harvested them and they were waiting for someone to come along and stack them into neat piles.”²⁴⁸

Harrison dispassionately discussed counting body parts and his disdain with crediting the B-52s for such an “outstanding mission.”²⁴⁹ He argued that the B-52 “flew so high they had no idea what they were bombing and their only danger was from being bored to death.”²⁵⁰ Harrison believed that the B-52’s safety and high altitudes made them less worthy to receive credited kills. He resolved that “fair is fair, as long as someone got the enemy. Anyone who felt differently simply had not been shot at enough.” Yet he concluded his thought, reasoning, “I was perfectly willing to be friends with the Viet Cong and NVA if they would just stop trying to kill me . . . I was willing to go home if they would.”²⁵¹ In the same narrative, his conflicted sentiments on killing are at odds with themselves. On the one hand, he described having no compassion for the “harvesting”²⁵² of hundreds of enemy and relished his superior killings. He argued that his FAC combat was of a greater merit than the blind high-altitude B-52 bombing. He endured greater danger and killed in closer proximity. His combat was something altogether different. Yet on the other hand, he resolved that his only animosity against the enemy was that they tried to kill him. He claimed that their quarrel would cease if they both just went home. Harrison’s narrative then concluded with a practical testing of his

²⁴⁸ Harrison, 235.

²⁴⁹ Ibid., 236.

²⁵⁰ Ibid.

²⁵¹ Ibid.

²⁵² Ibid., 237.

mercy. He resolves the opposing sentiments of his desire to fight and his ambivalence towards his enemy.

Harrison continued his visual reconnaissance and saw survivor tracks departing the blast area. He then saw that one track joined into two, and then dramatically tracked 90 degrees toward the tree line. Before he knew it, Harrison found himself over the two intertwined and limping soldiers. At the sight of the aircraft turning on them, they fell prone. One figure was unarmed and lay motionless, while the other raised his AK-47 to track the aircraft. Even from his altitude, he was able to make out that the armed man was having trouble steadying his rifle. He gained a few hundred feet to arm his weapons and dove after them. Lined in his sight it was impossible to miss the clear target:

The NVA soldier aiming his weapon at me suddenly let it fall from his shoulder and slumped forward wearily, keeping his eyes on my fast-approaching aircraft. He reached out with this left hand and put it on the shoulder of his prone comrade. I swept over them but couldn't bring myself to fire. I pulled up hard to miss the tall trees, and then slammed the stick over viciously to reacquire them. I wanted them to get up and run or to fire his weapon at me, I could have done it then but I knew I could not fire as long as they sat there.²⁵³

True to his word, as his enemy lay down arms, he felt that their relationship as combatants ceased. His enemy was humanized and vulnerable and he had no further quarrel with them.

In his memoir, Harrison described his homecoming with imagery of a confident conquering hero, stepping off the plane and greeting his wife. He described with vivid and tragic metaphor how after collapsing into the safe place his bravado washed away.

²⁵³ Harrison, 237.

He felt that his frailty was all that was left underneath.²⁵⁴ The thick mud of Vietnam was encased in all his pores. He obsessively scrubbed against his skin to detoxify himself from that environment and his actions in it. The filth of combat washed away but with it, also the veneer of his strength. In the mirror, he saw only his pale skin, and his flesh that looked as though all its excess meat had burned off in the oppressive heat. After combat, he and his family had to face the reality of his new identity and what he had become to survive.

It was only after he escaped the environment that his body could heal or even realize all the hidden impacts. Marshall Harrison's memoirs concluded with a scant few pages of his closing thoughts on the Vietnam War. He recalled during his going-away party, that he became maudlin late in the evening when his compatriots reminded him "the whole year had been bullshit and not to forget it."²⁵⁵ He lamented:

In a way, I suppose it was. I could not see anything that I'd changed by spending another year of my life in South Vietnam. Maybe I knew myself a little better, but there had to be a more pleasant way to do that. Certainly, I didn't feel that I had

²⁵⁴ Harrison, 173. His descriptive narrative serves as a powerful metaphor for his combat experience and some of the emotional tolls. "The water beneath me had turned into a rusty-red viscous liquid resembling hydraulic fluid. At first glance, it appeared to be a blood froth swirling in the bottom of the tub. Looking down at my body, half-expecting to see an open wound, I discovered instead that my golden tan was disappearing forever into the sewers of Waikiki. Washed clean of the red dirt embedded in my pores, my magnificent surfer's body became instead the pale, freckled, odd-looking assortment of bones and sinew that it had always been. Even more disgusting, now with the pale skin as a backdrop, was the unattractive row of seed warts festooning my shoulders like tiny white railings, nurtured by the constant dampness and irritation of my parachute harness. What tan I had stopped abruptly at my collarbone and at the juncture of my elbows where I kept my sleeves rolled. All in all, a sorry looking sight."

²⁵⁵ Ibid., 283.

helped the Vietnamese. Perhaps I'd helped some of them stay alive a little longer, but I'd sure been instrumental in the destruction of more than I'd saved.²⁵⁶

Whereas other FACs concluded that they had done more good than bad, Harrison came to bitter and humble terms that he had not done that much. Yet, he received the Silver Star, two distinguished Flying Crosses, twenty Air Medals, and two Vietnamese Gallantry Crosses. Truly, a hero as defined by the military's highest awards, yet Harrison marveled at the irony. He thought what tremendous things men would do in the military for tiny pieces of medal. No sum of money could otherwise inspire such valor and disregard for self. As he boarded the plane he remarked, "I'd expected to be on an emotional high at this point. Instead I felt flat, almost bored with the idea of going home. Now I was going to be like everyone else, nothing special."²⁵⁷

Harrison filled his memoir's final narrative with somber metaphors. The closing passage is the second of only two mentions of his wife after his tour began. Both narratives disdainfully refer to the changes his body endured from combat and his fears of how his wife would view him:

I suddenly thought of my wedding band, still hanging on my dog-tag chain around my neck, along with the GI can opener. I took the ring from the chain. It was tarnished almost completely green from the humidity and sweat from the last twelve months. I tried to brighten it with a piece of toilet paper but with little success. It slid over the second joint of my finger as if it belonged to someone else.²⁵⁸

Two things tarnished his wedding band; the sweat of his body in response to his toils and the humidity of Vietnam. Every other mention of green imagery referred to the wild,

²⁵⁶ Harrison, 283.

²⁵⁷ Ibid., 285.

²⁵⁸ Ibid.

untamed beauty and savagery of the Vietnam jungle. His narrative often personified the jungle, and attested to its oppressive, unforgiving, mysterious, and enigmatic nature.

As he was walking to the aircraft for its final leg home, Harrison quickly raised his hand to shield his eyes from the hot exhaust of a jet engine warming up. On the “down-stroke my wedding band flew from my skinny finger and rolled in front of the aircraft. I stared at it, then feeling other eyes on me, turned to see the flight attendant looking at me sympathetically.” ‘Do you want to try to find it?’ She asked. I gazed in the direction the ring had taken under the nose of the aircraft . . . ‘To hell with it, Let’s go home’.”²⁵⁹

His last words leave the short story without further comment or context. Rather the closing story captures his metaphor of the larger experience. Over the course of his FAC tour in SEA, he personally killed hundreds, watched numerous Americans cut down below him or die smoldering in aircraft hulks. He fought a secret war in Laos, survived being shot down in Cambodia and his closing remarks were “to hell with it, let’s go home.”²⁶⁰

The war fundamentally changed him. He was no longer the man that entered the conflict. His wedding band, which represented who he was as man, father, and husband was deeply altered by the environment and by his actions to survive it. Not only was the band itself changed but also his body no longer fit it. The metal was so irrevocably corroded, that he could only chuck the whole thing and head home with what was left. His thin veneer of strength and bravado washed away and revealed him to be changed

²⁵⁹ Harrison, 285.

²⁶⁰ Ibid.

and damaged in some ways. He adapted to survive, thrive, kill, and protect. After having made it through, he was left to deal with combat's toll. They destroyed a great deal and killed a great many, they protected the Vietnamese living in the South for a time but only prolonged the inevitable. He believed the U.S. presence there did not ultimately change anything. Harrison's final thoughts were fatalistic and irreverent.

Military convention emphasizes strict order and discipline while irreverence seems antithetical to them. However many highly decorated FACs such as Harrison and Jackson, repeatedly exhibited attitudes of irreverence. The military awarded decorations, which indicated valorous acts that were extolled by the military chain of command. On the one hand, irreverent airmen received negative paperwork in garrison while in combat those same traits set them apart on the battlefield. Commanders that fail to see the value of their subordinate's fighting spirit may work to break them of it. However, leaders must recognize the value of irreverence not only in combat but also as dissenting voices or agents for change. The zeal to brave dangerous missions, think critically, and think divergently go hand in hand with a dose of irreverence. At times irreverent FACs rebelled against ROE and regulations thereby overcoming bureaucracy for the sake of mission success. Additionally, some FACs utilized forms of irreverence as coping mechanisms to detach themselves from the trauma of mortal combat.

Among the three characteristics, there is a unifying strength. Warriors epitomize audacity, to be able to act boldly, bravely, and fearlessly within the chaos. Warriors exemplify innovation, to adapt creatively to the situation, to see the opportunities, and seize the advantages. Warriors live with a measure of irreverence, to defy the restrictions,

to challenge assumptions, to rage against the system and when it is all over—to chuck the whole thing out and walk away with what is left.

CHAPTER 5

CONCLUSION

This thesis set out to understand the impact of protracted combat upon FACs in the Vietnam War. It became quickly apparent that FACs began the war in an unfavorable position. They lacked suitable aircraft, possessed insufficient TTPs, lacked CAS doctrine and existed in an USAF that myopically focused on nuclear strike and long-range strategic bombers. As the author dug deeper to understand the political, military, and environmental context, it became clear that the operational environment had a significant impact on FAC development.

The Eisenhower administration and USAF leadership sought to avoid another bloody Korean War and responded to the Soviet threat with long-range strategic bombers. While the USAF designed a force to confront the Soviets with nuclear deterrence, it was ill suited for jungle warfare against elusive targets. USAF bureaucrats were slow to acknowledge that their force or doctrine needed modification against the VC or NVA. This meant that USAF pilots had to make do with what they had for several years of combat. Additionally, the FID mission was new to the USAF. As the advisor model failed to provide sufficient South Vietnamese combat power, Americans became more directly involved. As U.S. forces assumed direct combat roles, the need for CAS aircraft rapidly escalated.

FACs strove valiantly to provide CAS in the jungle environment from makeshift converted civilian aircraft. What the FAC aircraft lacked in capability, the pilots compensated with audacity, innovation, and irreverence. FACs steadily improved their aircraft and tactics throughout the Vietnam War, yet still paid a heavy price in blood. The

human story repeated several themes across the decades, airframes and FAC accounts. FACs repeatedly demonstrated bravery, ingenuity, and sacrifice in order to provide CAS to the troops in need.

There are fascinating correlating characteristics between Vietnam War FACs and their descendants the Forward Air Controller-Airborne and CCTs. How can the characteristics of audacity, innovation, and irreverence transfer across five decades? This observation leads to the question, do the harrowing duties of a FAC attract these personalities or does the FAC experience create them? Does FAC combat create these common characteristics or does combat simply reveal what was already there? While it is beyond the scope of this paper, it is intriguing to note that combat controllers today have instinctively performed similar acts of audacity and innovation in Iraq and Afghanistan as their predecessors did in Vietnam and Laos.

Further Research Recommended

Not all historical legacies are positive. This thesis also identified the recurring propensity for military leaders to abandon non-standard equipment and expertise in the inter-war period. Battlefield adaptations spawned to defeat specific threats during war are easy targets for budgetary elimination once the conflict is over. Military leaders must preserve these artifacts and lessons learned for the next conflict instead of forcing the next generation to reinvent them in the next conflict.

Following the Korean War and Vietnam War, several CAS capabilities were abandoned based on the assumptions that future technologies would render them obsolete. The majority of FAC and CAS advancements made during the war were lost. In contemporary history, following U.S. troop drawdowns in Iraq and Afghanistan, the

USAF has attempted to discontinue the A-10 Warthog, the primary CAS platform from its arsenal. USAF leadership uses similar arguments that the more advanced platforms need the resources and that future anti-air threats will render the A-10 aircraft obsolete. Regardless of the fate of the aircraft, the tremendous resource of CAS expertise within the A-10 community should be deliberately preserved and transferred across platforms.

The theme of learn, master, and forget was briefly addressed in this paper. There are numerous historical examples of the USAF entering war ill prepared, learning, and then mastering the unique challenges of that conflict then abandoning the gains following the conflict. Further research is needed to determine what organizations have been able to avoid that historic pitfall and what factors led to retention of the lessons learned.

Additionally, this thesis noted that the French Air Force wrote a large volume of lessons learned after their defeat in Vietnam. The French argued how Douhet's air power theories were insufficient in combating an insurgency. The U.S. military dismissed the French experience and dogmatically applied Douhet's principles against North Vietnam. As the U.S. bombing campaigns failed to achieve their objectives, the USAF staunchly defended their doctrine and insisted that the bombing campaigns only failed due to the political limitations. A comprehensive study of air campaigns waged against insurgencies would be tremendously valuable.

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